

# **Hisense**

## **USE AND INSTALLATION INSTRUCTIONS**

Thank you very much for purchasing this Air Conditioner. Please read this **use and installation instructions** carefully before installing and using this appliance and keep this manual for future reference.

Welcome to use our product!

Thanks for trusting us.

Please read this manual carefully before installation!

Keep it properly for future use after installation!

## Features of This Cassette Air-Conditioner

- Save Installation Space

The indoor unit can be installed inside the ceiling conveniently.

- High Efficiency and Environment Friendly

New Refrigerant-R410A\*

R410A can protect the environment and do not harm to the ozone layer.

- 24-hour Timer ON and OFF

This Timer can be set to automatically turn the unit on or off within a 24-hour period.

- Mute Operation

The excellent fan design enable the airflow to be quiet and smooth with minimum noise.

- Self Recovery of Power Break

When the power supply is recovered after break, all preset are still effective and the air-conditioner can run according to the original setting.

- Fault Self-diagnose Function

When there is something wrong with the air-conditioner, the micro computer could diagnose the faults, which can be read from the display and is convenient for maintenance.

\*NOTE:

For Cooling Only Unitary Air-conditioner, use refrigerant R22.

## APPLICATION MODEL

### DC Inverter Unitary Air-conditioner

AUC-18UX4SGAA

AUC-24UX4SZEA

AUC-36UX4SAEA

AUC-48UX6SPFA

AUC-60UX6SPFA

### New DC Inverter Unitary Air-conditioner (High-Efficiency Type)

AUC-18UR4SZAA1

AUC-24UR4SAEA1

AUC-36UR4SAEA1

### On\Off Unitary Air-conditioner

AUC-18HR4SUAA

AUC-24HR4SZGA

AUC-36HR6SAGA

AUC-48HR6SPHA

AUC-60HR6SPHA

### Cooling Only Unitary Air-conditioner

AUC-18CR4FUAA

AUC-42CR4FEHA

# IMPORTANT NOTICE

- We pursue a policy of continuing improvement in design and performance of products. The right is therefore reserved to vary specifications without notice.
- We cannot anticipate every possible circumstance that might involve a potential hazard.
- This air conditioner is designed for standard air conditioning only. Do not use this heat pump air conditioner for other purposes such as drying clothes, refrigerating foods or for any other cooling or heating process.
- The installer and system specialist shall secure safety against leakage according to local regulations or standards.
- No part of this manual may be reproduced without written permission.
- Signal words (DANGER, WARNING and CAUTION) are used to identify levels of hazard seriousness. Definitions for identifying hazard levels are provided below with their respective signal words.

**DANGER**

: Immediate hazards which WILL result in severe personal injury or death.

**WARNING**

: Hazards or unsafe practices which COULD result in severe personal injury or death.

**CAUTION**

: Hazards or unsafe practices which COULD result in minor personal injury or product or property damage.

**NOTE**

: Useful information for operation and/or maintenance.

- It is assumed that this heat pump air conditioner will be operated and serviced by English speaking people. If this is not the case, the customer should add safety, caution and operating signs in the native language.
- If you have any questions, contact your distributor or dealer .
- This manual gives a common description and information for this air conditioner which you operate as well as for other models.
- This air conditioner has been designed for the following temperatures. Operate it within this range.

**New DC-Inverter Unitary (High-Efficiency type)**

	outdoor working temperature(°C)	
	maximum	minimum
Cooling Operation	48	-15
Heating Operation	24	-10

**ON/OFF Unitary type**

	outdoor working temperature(°C)	
	maximum	minimum
Cooling Operation	43	15
Heating Operation	24	-10

**Cooling Only Unitary type**

	outdoor working temperature(°C)	
	maximum	minimum
Cooling Operation	43	15

**DC-Inverter Unitary type(18K,24K,36K)**

	outdoor working temperature(°C)	
	maximum	minimum
Cooling Operation	43	15
Heating Operation	24	-10

**DC-Inverter Unitary type(48K,60K)**

	outdoor working temperature(°C)	
	maximum	minimum
Cooling Operation	48	-15
Heating Operation	24	-10

This manual should be considered as a permanent part of the air conditioning equipment and should remain with the air conditioning equipment.

NOTE: Heating and electric heating function are not available in single cooling only model.

# CHECKING PRODUCT

- Upon receiving this product, inspect it for any shipping damage. Claims for damage, either apparent or concealed, should be filed immediately with the shipping company.
- Check the model number, electrical characteristics (power supply, voltage and frequency) and accessories to determine if they are correct.

The standard utilization of the unit shall be explained in these instructions.

Therefore, the utilization of the unit other than those indicated in these instructions is not recommended.

Please contact your local agent, as the occasion arises.

Safety precautions	1
Identification of Parts	3
<b>remote controller operation Manual</b>	
1. Wire Remote Controller introduce	5
2. Operation with wire remote controller	7
2.1 Mode function	7
2.2 Sleep function	8
2.3 Timer function	8
2.4 Flap Setting	8
3. Wire Remote controller installation	9
4. Wireless Remote Controller introduce	10
4. 1. Remote controller-H1	10
operation mode	12
airflow direction control	13
smart mode	14
clock button	14
timer mode	15
sleep mode	16
super mode	16
4. 2. Remote controller-J1	17
operation mode	19
airflow direction control	20
smart mode	21
clock button	21
timer mode	22
sleep mode	23
super mode	23
4. 3. Remote controller-E4-07	24
operation mode	26
airflow direction control	27
smart mode	28
clock button	28
timer mode	29
sleep mode	30
super mode	30
5. Before Operation	31
6. Special Remarks	31
7. Setting of Automatic Swing Louver	31
8. Filter Cleaning	32
9. Trouble shooting	33

**Diagram of Refrigerant Cycle**

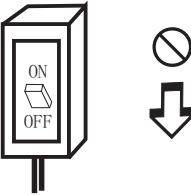
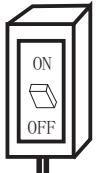
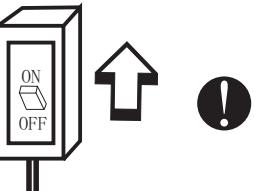
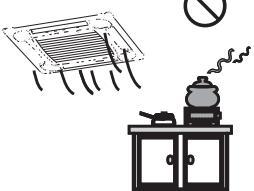
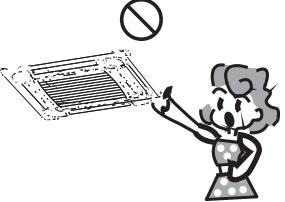
1. Refrigerant Flow Diagram	34
2. Electrical Wiring Diagram	34

**Installation and Maintenance**

1. Safety Notice	35
2. The Tools and Instrument for Installation	36
3. The Installation of the Indoor Unit	36
3.1 The Initial Check	37
3.2 Installation (for 24K, 36K, 42K, 48K, 60K)	39
3.3 Installation (for 18K)	42
4. The Installation of the Outdoor Unit	44
4.1 The Initial Check	44
4.2 Installation	44
4.3 Tuber length between indoor and outdoor	45
5. Refrigerant Pipe	46
5.1 The Pipe Material	46
5.2 The Connection of the Pip	46
6. Drain Piping	48
7. Electrical wiring	50
7.1 General check	50
7.2 Electrical wiring connection	51
8. Test Run	52
9. Common	53

### Symbols in this User's Manual are interpreted as shown below:

- 🚫 Be sure not to do.
- ❗ Be sure to follow the instruction.
- ❓ The feature of the appliance, instead of a fault.
- ✚ Grounding is necessary.
- 📝 Pay attention to such a situation.
- ⚠ Warning: Incorrect handling could cause a serious hazard, such as death, serious injury,etc.

 <p>Do not use the power supply circuit breaker or pull off the plug to turn it off during operation. This may cause a fire due to spark, etc.</p>	 <p>Keep the power supply circuit breaker or plug from dirt. Connect the power supply cord to it firmly and correctly, lest an electric shock or a fire break out due to insufficient contact.</p>	 <p>Used correct power supply in accordance with the rating plate requirement . Otherwise, serious faults may be occur or a fire may be break out</p>
 <p>Do not knit, pull or press the power supply cord, lest the power supply cord be broken. An electric shock or fire is probably caused by a broken power supply cord.</p>	 <p>Never insert a stick or similar to the unit. Since the fan rotates at high speed, this may cause an injury.</p>	 <p>It is harmful to your health if the cool air reaches you for a long time. It is advisable to let the air flow be deflected to all the room.</p>
 <p>Turn off the appliance first before cutting off power supply when malfunction occurs.</p>	 <p>Do not repair the appliance by yourself. If this is done incorrectly, it may cause an electric shock, etc.</p>	 <p>Prevent the air flow from reaching the gas burners and stove.</p>
 <p>Do not touch the operation buttons when your hands are wet.</p>		 <p>It is the user's responsibility to make the appliance be grounded according to local codes or ordinances by a licenced person.</p>

### Operating condition

The protective device maybe trip and stop the appliance in the cases listed below:

HEATING	Outdoor air temperature is over 24°C
	Outdoor air temperature is below -10°C
COOLING	Room temperature is over 27°C
	Outdoor air temperature is over 43°C
DRY	Room temperature is below 21°C
DRY	Room temperature is below 18°C

If the air conditioner runs in "COOLING" or "DRY" mode with door or window opened for a long time when relative humidity is above 85%, dew may drip down from the air outlet.

### Noise pollution

- Install the air conditioner at a place that can bear its weight in order to operate more quietly.

### Features of protector

The protective device will work at following cases:

- Stopping the appliance and restarting it at once or changing mode during operation, you need to wait 3 minutes.

### Inspection

After using for a long time, the air conditioner should be inspected on the following items:

- Overheat of the power supply cord and plug or even a burned smell.
- Abnormal operating sound or vibration.
- Water leakage from indoor unit.
- Metal cabinet electrified.

Stop the air conditioner if above trouble occurs.  
It is advisable to have a detail inspection after using it for 5 years even if none of the above occurs.

### Features of HEATING mode

#### Preheat

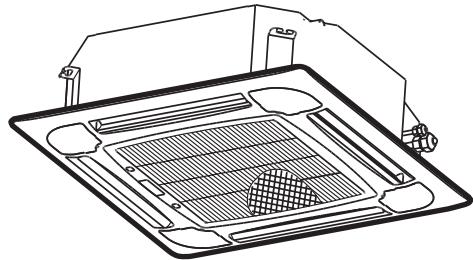
At the beginning of HEATING operation, the airflow from indoor unit is discharged 2-5 minutes later.

#### Defrost

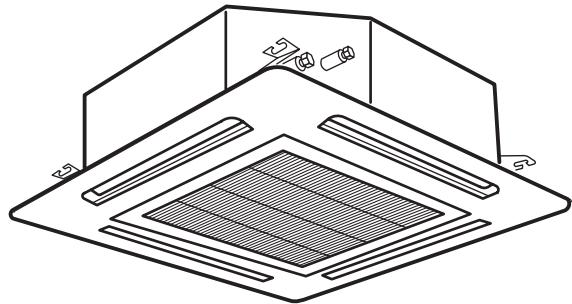
In HEATING operation the appliance will defrost (de-ice) automatically to raise efficiency. This procedure usually lasts 2-10 minutes. During defrosting, fans stop operation. After defrosting completes, it returns to "HEATING" mode automatically.

 It is hard to raise the room temperature when outdoor temperature is very low. Use the air conditioner together with other heating appliance in this case.

### Indoor unit

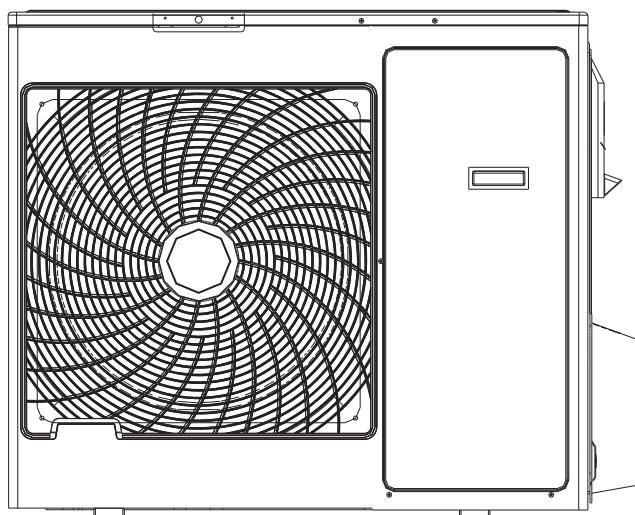


18K

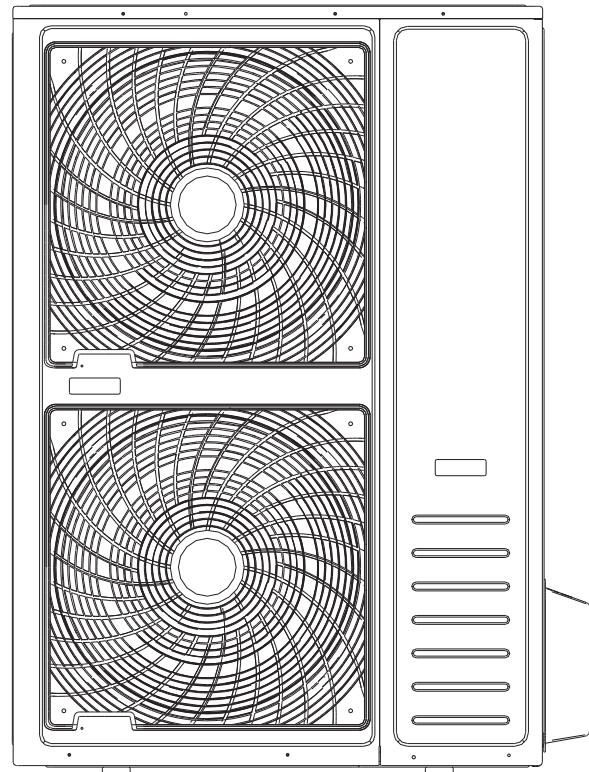


24K,36K,42K,48K,60K

### outdoor unit



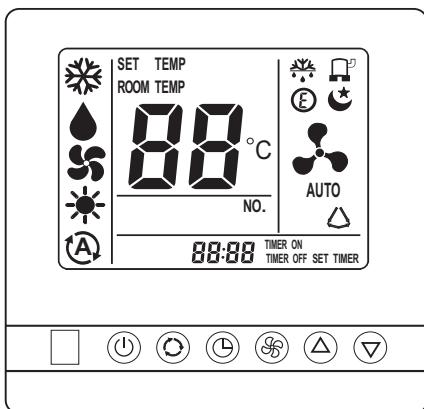
18K,24K,36K



42K,48K,60K

*Note: The picture above is for reference only, specifications are subject to the material product.*

### Wire remote controller



Wire remote controller is used for controlling indoor embedded unit directly.

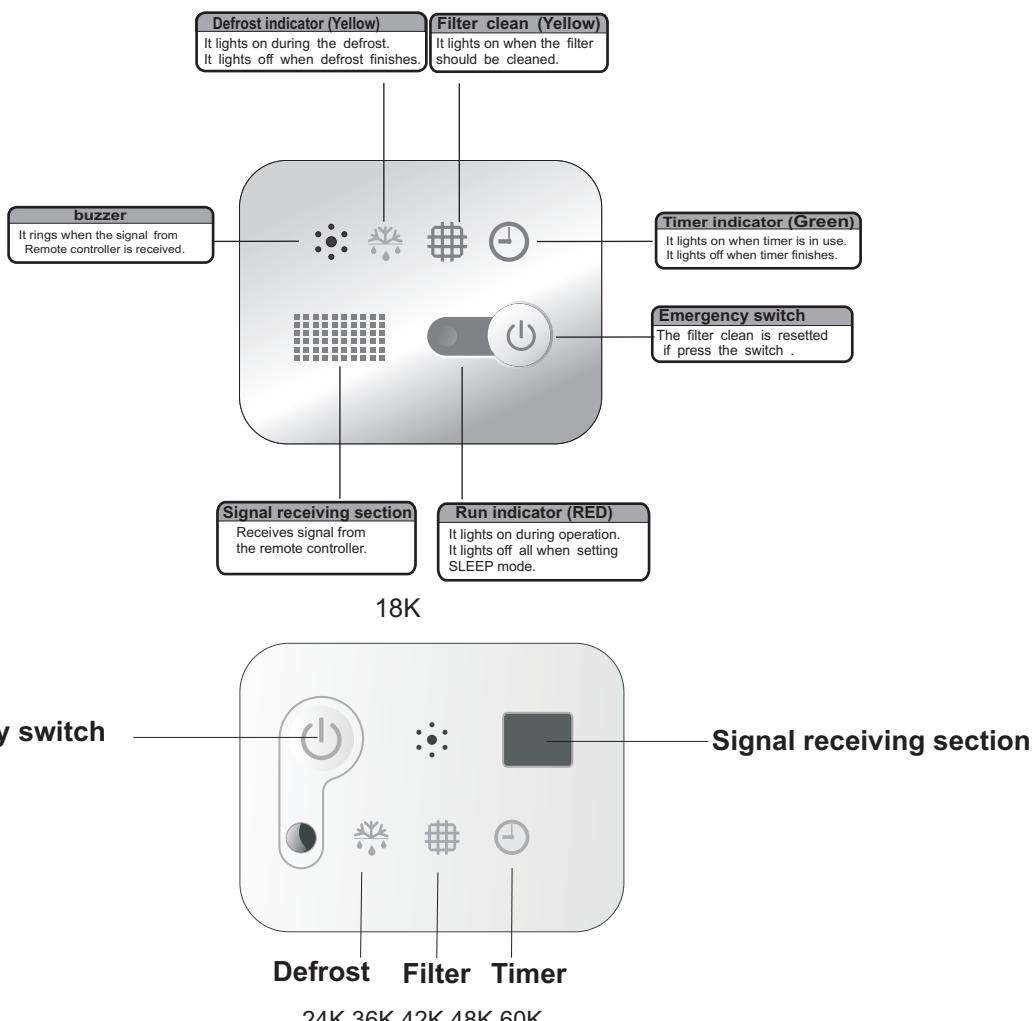
### Wireless remote controller



Remote controller is used for controlling embedded display panel and wire remote controller.

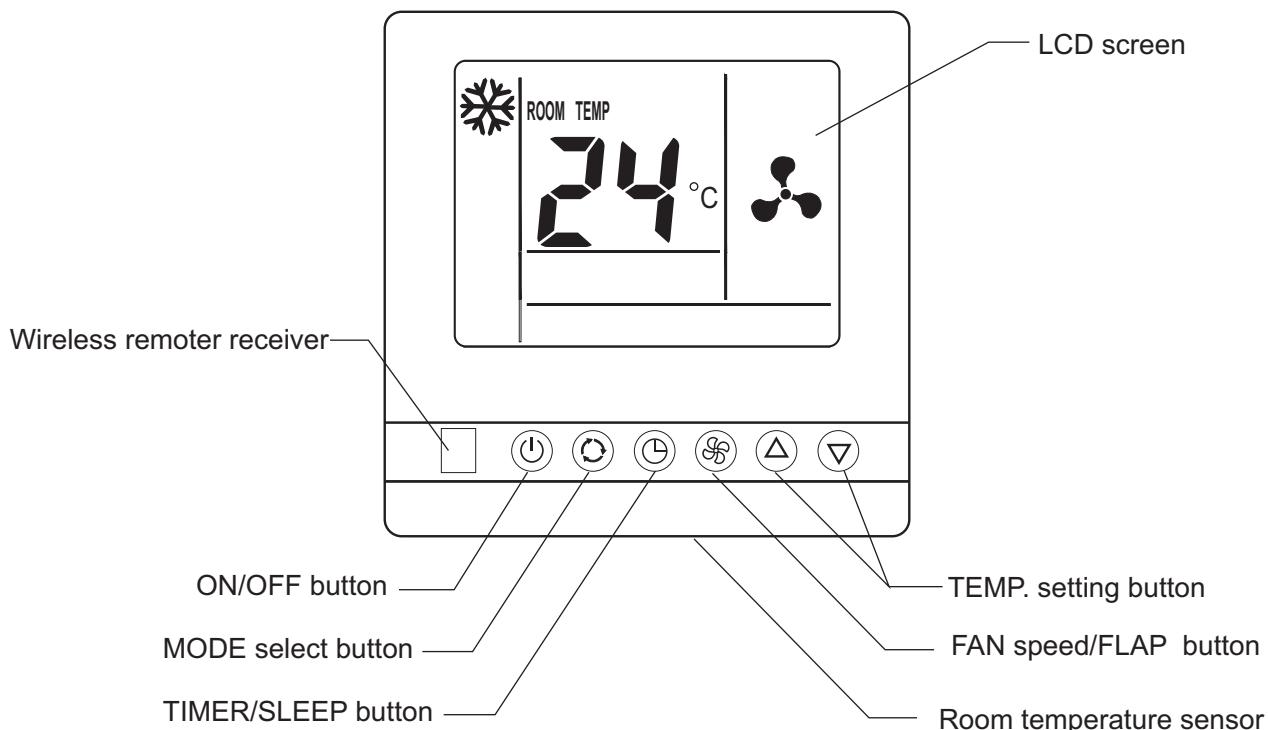
Note : There are different types of Remote controllers, specific models are subject to the material products.

### Display Panel



• The figures in this manual are based on the external view of a standard model. Consequently, the shape may differ from that of the air conditioner you have selected.

### 1. Wire remote controller introduce:



#### ①. Room temperature sensor:

A temperature sensor inside the wire remote control switch is set to sense room temperature, and the temperature will be sent to indoor unit. When do not connect the wire remote control switch, indoor unit will switch to the temperature sensor which is built into indoor unit.

#### ②. Wireless remoter receiver:

by this receiver, you can use a additional wireless remoter switch to control indoor unit.

#### ③. ON/OFF button:

press this button to turn on or turn off the unit.

#### ④. MODE select button:

Press this button to select COOLING, DEHUMIDIFICATION, FAN, HEATING or AUTO-RUN mode.

☀ COOLING mode, the air conditioner makes the room cool.

💧 DEHUMIDIFICATION mode, the air conditioner reduces the humidity in the room.

☴ FAN mode, the air conditioner makes the room's temperature suitable, providing the soft air flow.

☀ HEATING mode, The air conditioner makes the room warm.

Ⓐ AUTO-RUN mode, The air conditioner runs in right mode according to the temperature of room.  
(This mode is invalid for 18k,24k DC Inverter Unitary air-conditioners except high-energy efficiency types).

#### ⑤. TIMER/SLEEP button:

- Press this button to active sleep mode, and “🌙” will appear in LCD. Press again to cancel sleep function.
- Press this button for 3 seconds to active timer function, Press for 5 seconds again to cancel timer function.

To timer function Pls. refer to timer function introduce.

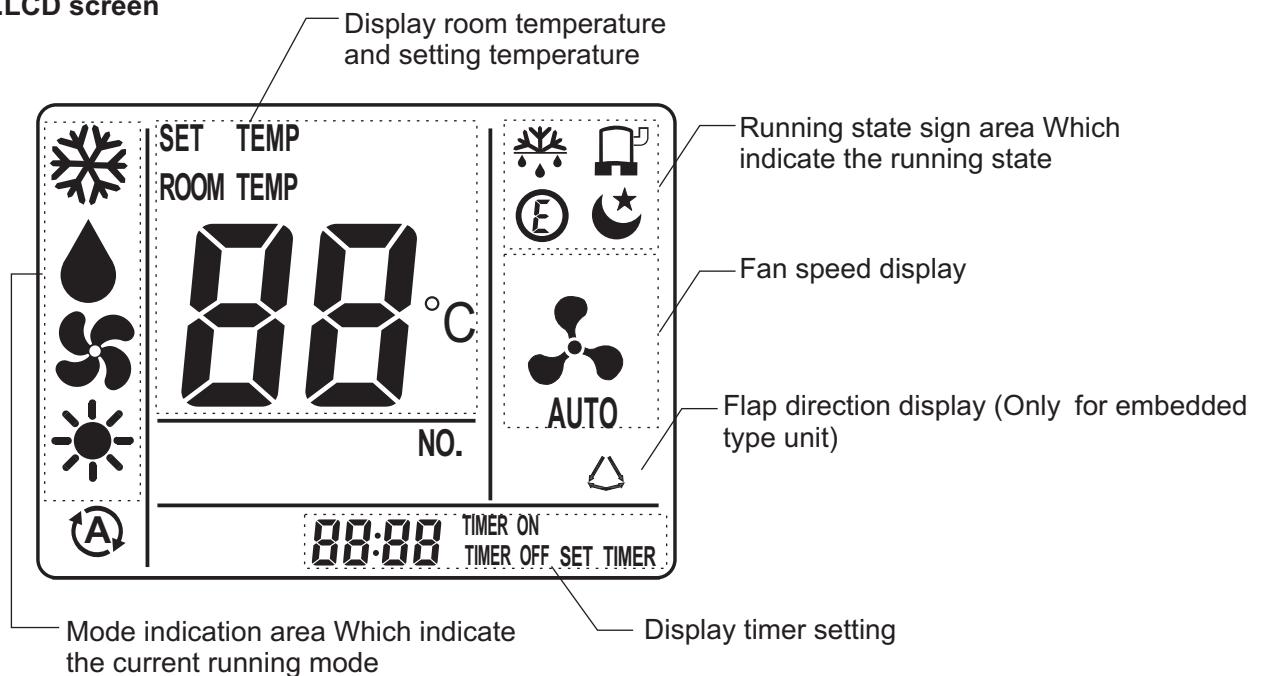
#### ⑥. FAN speed button:(Flap button setting refers to description page 8.)

Press this button to change current fan speed. You can select “ AUTO ” (auto fan speed), “ ⚡ ” (low fan speed), “ ⚡ ” (medium fan speed), and “ ⚡ ” (high fan speed) by each press.

#### ⑦. TEMP Setting button:

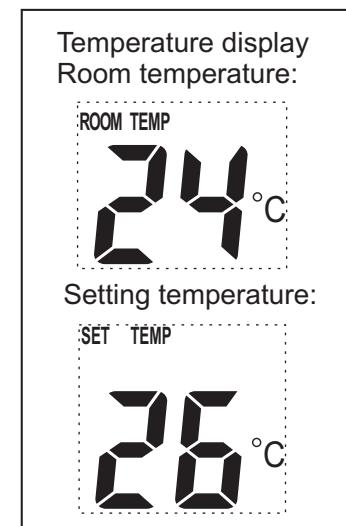
Press the couple of buttons to set room temperature you want, when you press “SET TEMP” sign will appear in LCD, press “▽” button to reduce setting temperature, and press “△” button to increase setting temperature.

### ⑧LCD screen



Operation mode	
	cooling mode
	dehumidification mode
	fan mode
	heating mode
	auto mode (This mode is invalid for 18k, 24k DC Inverter Unitary air-conditioners except high-energy efficiency types).

Fan speed setting	
	auto fan
	high fan speed
	meddle fan speed
	low fan speed



<b>TIMER ON</b>	timer on
<b>TIMER OFF</b>	timer off
<b>88: 88</b>	timer clock

	Outdoor is defrosting
	Compressor is running
	Soft running mode is active
	Sleep mode is active

Flap direction display	
	swing sign

## 2. Operation with wire remote controller

### 2.1 Mode function

1. Press MODE button “  ” to select operation mode:

 cooling mode

 dehumidification mode

 fan mode

 heating mode

 A auto-run mode (This mode is invalid for 18k,24k DC Inverter Unitary air-conditioners except high-energy efficiency types).

2. Press ON/OFF “  ” button to turn on or turn off the unit

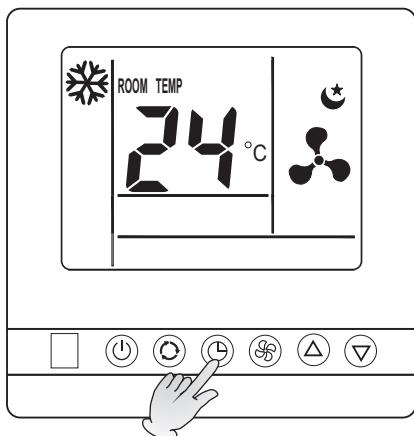
3. Press TEMP. SETTING “  ” “  ” button to set room temperature. The temperature range can be set from 18°C to 32°C .

4. Press FAN button “  ” to set fan speed you want. Of course you can set auto fan and indoor unit will automatic select fan speed according to the difference between room temperature and setting temperature

5. You may turn off the unit by press ON/OFF “  ” button again

Note: In fan mode, temperature setting is invalid.

### 2.2 Sleep function

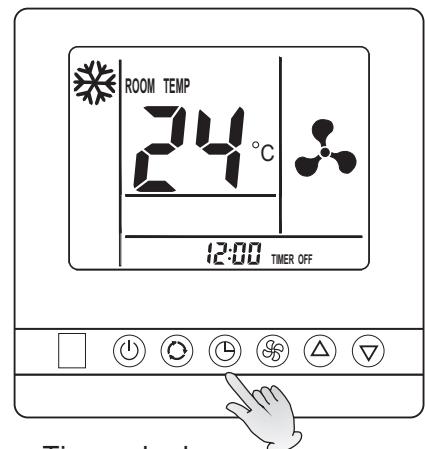


Press timer/sleep button once to active sleep function. And sleep sign “” will appear on LCD.

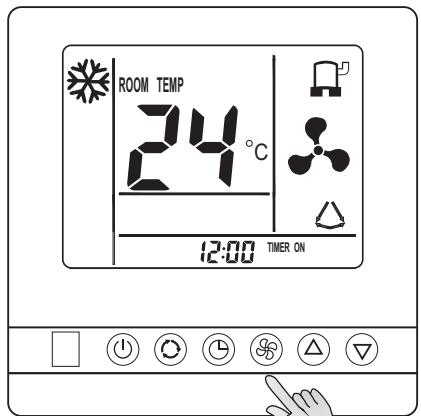
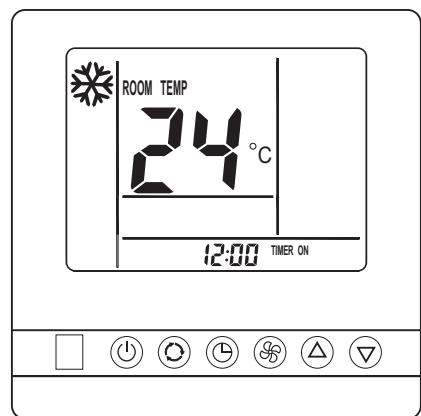
Press timer/sleep button again to cancel sleep function, and sleep sign on LCD will disappear.

Note:

During fan mode, auto mode, the sleep function is invalid.



Timer clock



### 2.3 Timer function

#### TIMER OFF mode

- ① you can set timer off when indoor unit is running. By press **TIMER/SLEEP** button for 3 seconds, timer clock appear on LCD, and “**TIMER OFF**” flag will twinkle.
- ② you can adjust the time after which the indoor unit would turn off automatically by press “ $\Delta$ ” “ $\nabla$ ” button. The time can be set from 0.5 to 24(or 12) hour in 30 minutes steps.
- ③ when you have set the time, press **TIMER/SLEEP** button for 3 seconds again or wait for 5 seconds to active the timer, “**TIMER OFF**” flag will stop twinkle, and timer begin to work.
- ④ IF you need cancel “**TIMER OFF**”, press **TIMER/SLEEP** button for 3 seconds to active the timer, Press “ $\Delta$ ” “ $\nabla$ ” button set time 00:00, Cancel “**TIMER OFF**” after five seconds automatically.

#### TIMER ON mode

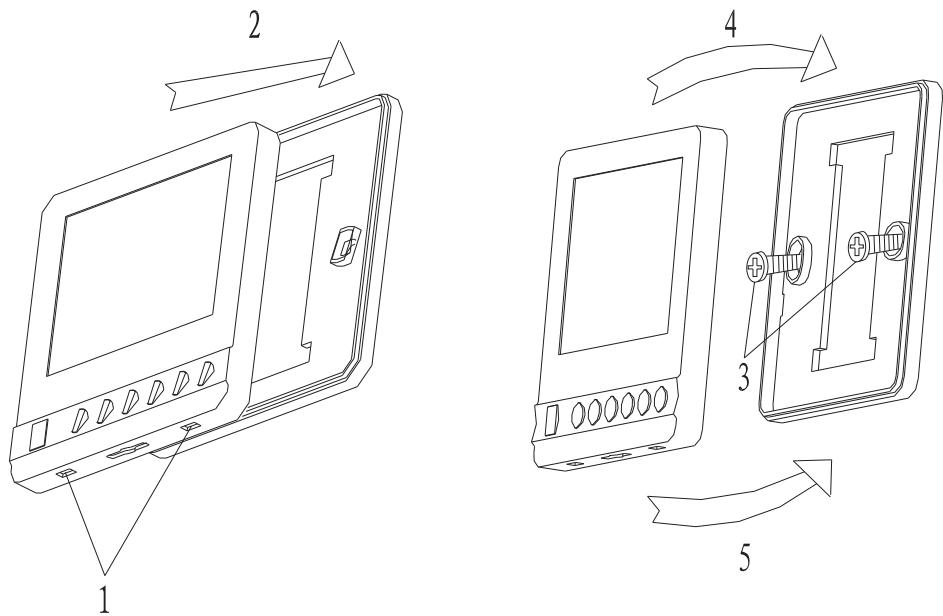
- ① you can set timer on when indoor unit is shut off, By press **TIMER/SLEEP** button for 3 seconds, timer clock appear on LCD, and “**TIMER ON**” flag will twinkle.
- ② you can adjust the time after which the indoor unit would turn on automatically by press “ $\Delta$ ” “ $\nabla$ ” button. The time can be set from 0.5 to 24(or 12) hour in 30 minutes steps.
- ③ when you have set the time, press **TIMER/SLEEP** button for 3 seconds again or wait for 5 seconds to active the timer, “**TIMER ON**” flag will stop twinkle, and timer begin to work.
- ④ IF you need cancel “**TIMER ON**”, press **TIMER/SLEEP** button for 3 seconds to active the timer, Press “ $\Delta$ ” “ $\nabla$ ” button set time 00:00, Cancel “**TIMER ON**” after five seconds automatically.

### 2.4 Flap setting

IF the air conditioner is on, press the “” for two seconds, “trickle” a sound, Then the flap begin swing. IF you need stop swing, press the “” for two seconds again, and the flap stop swing.

### 3. Wire Remote controller installation

Installation of the wire remote controller please refer to the following:



The wire remote controller must be installed by qualified installation technicians in accordance with installation drawing instruction, the power should be shut off before installation. Air flow and away from heating where the wire remote controller is installed. The following is process of installation.

①. Insert a minus screw driver into down slot (2 places).

Be careful not to damage the PC board with minus screw driver.

②. Remove the back cover.

③. Use two screw(  $\phi 4 \times 16$  ) to fasten the back and metal board in the mounting place and tighten the screw, then link the communication wire.

④. Fasten top cover into back cover.

⑤. Fasten bottom cover into back cover.

# Remote controller

## Remote controller -H1

The remote controller transmits signals to the system.

### 1 ON/OFF BUTTON

The appliance will be started when it is energized or will be stopped when it is in operation, if you press this button.

### 2 MODE BUTTON

Press this button to select the operation mode.

### 3 FAN BUTTON

Used to select fan speed in sequence auto, high, medium or low.

### 4 5 ROOM TEMPERATURE SETTING BUTTONS

Used to adjust the room temperature and the timer, also real time.

### 6 SMART BUTTON

Used to enter fuzzy logic operation directly, regardless of the unit is on or off.

### 7 SWING BUTTON

Used to stop or start horizontal adjustment louver swinging and set the desired up/down airflow direction.

### 8 SLEEP BUTTON

Used to set or cancel Sleep Mode operation.

### 9 DIMMER BUTTON

The screen brightness is decreased each time that button is pressed and it goes blank after pressing the button four times.

### 10 CLOCK BUTTON

Used to set the current time.

### 11 12 TIMER ON/OFF BUTTON

Used to set or cancel the timer operation.

### 13 SUPER BUTTON (invalid for heating mode)

Used to start or stop the fast cooling.  
(Fast cooling operates at high fan speed with 18°C set temp automatically)

### 14 MUTE BUTTON

Used to set or cancel Mute mode operation.

Indication symbols on LCD:

❄ Cooling indicator

✿ Auto fan speed

◇ Dry indicator

● High fan speed

‰ Fan only indicator

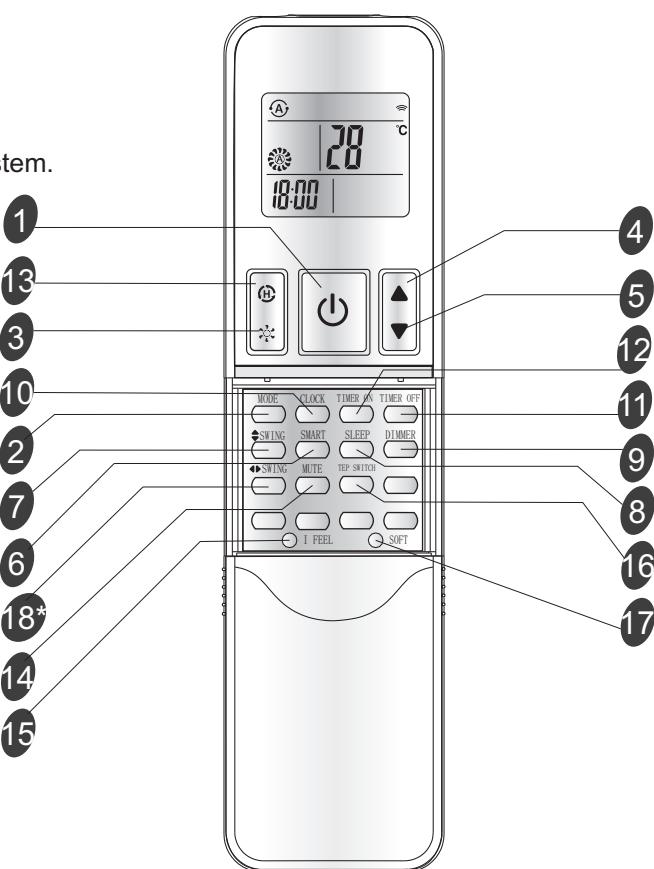
◆ Medium fan speed

✳ Heating indicator

○ Low fan speed

Ⓐ Soft indicator

☒ Cancel I feel indicator



### 15 I FEEL BUTTON

Used to start or stop the I feel mode. Press this button above 5 seconds, Turn off I FEEL mode. (In I feel mode, the Air Conditioner operates basis temperature sensor fitted in remote instead of machine, Advice to use I FEEL mode and the remote put where the indoor unit receive signal easily.)

### 16 TEP SWITCH BUTTON (invalid for this model)

Display set temperature flickeringly when the button is pressed. Display indoor temperature when the button is pressed again. And the flicker must be closed by pressing the button or cutting off the electricity supply.

### 17 SOFT BUTTON (only effective for DC inverter model)

Used to limit the maximum electric current, so that you can use it with other electric instrument when power is not enough.

### 18\* SWING BUTTON (invalid for this model)

Used to stop or start vertical adjustment louver swinging and set the desired left/right airflow direction.

\*Some remote controller models without this button.

Ⓐ Smart indicator

WiFi Signal transmit.

🌙 Sleep indicator

88:00 ON Display set timer

🌙 Mute indicator

88:00 OFF Display current time

Ⓗ Super indicator

88 °C Display set temperature

Note: Each mode and relevant function will be further specified in following pages.

# Remote controller

## Remote controller

- **How to Insert the Batteries**

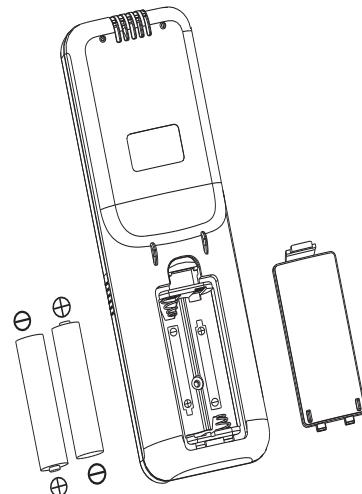
Remove the battery cover according to the arrow direction.

Insert new batteries making sure that the (+) and (-) of battery are matched correctly.

Reattach the cover by sliding it back into position.

**Note:**

• Use 2 LR03 AAA(1.5volt) batteries. Do not use rechargeable batteries. Replace batteries with new ones of the same type when the display becomes dim.

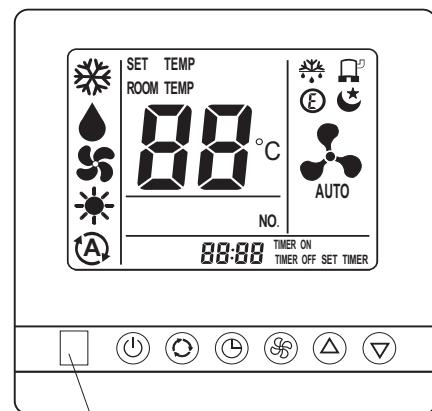


- **How to Use**

To operate the room air conditioner, aim the remote controller to the signal receptor. The remote controller will operate the air conditioner at a distance of up to 8m when pointing at signal receptor of indoor unit.



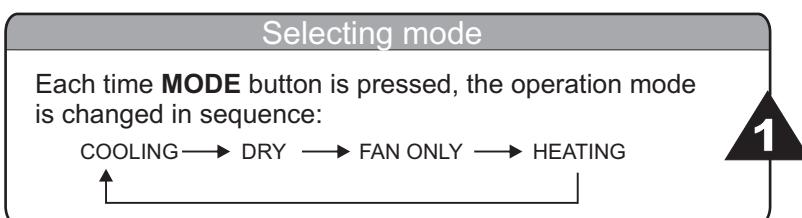
18K



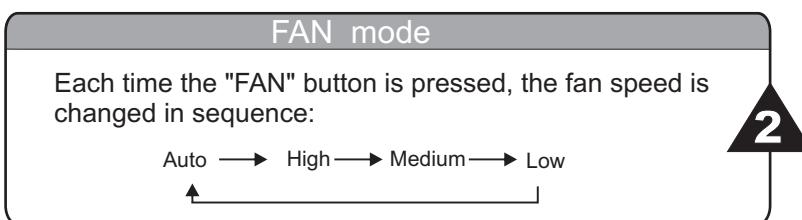
24K,36K,42K,48K,60K

# Operation instructions

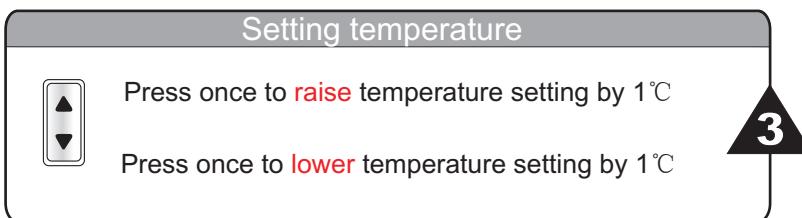
## Operation modes



Heating mode is NOT available for cooling only air conditioner.



At "FAN ONLY" mode, only "High", "Medium" and "Low" are available. At "DRY" mode, Fan speed is set at "Low" automatically, "FAN" button is ineffective in this case.



Range of available set temperature	
*HEATING, COOLING	18°C~32°C

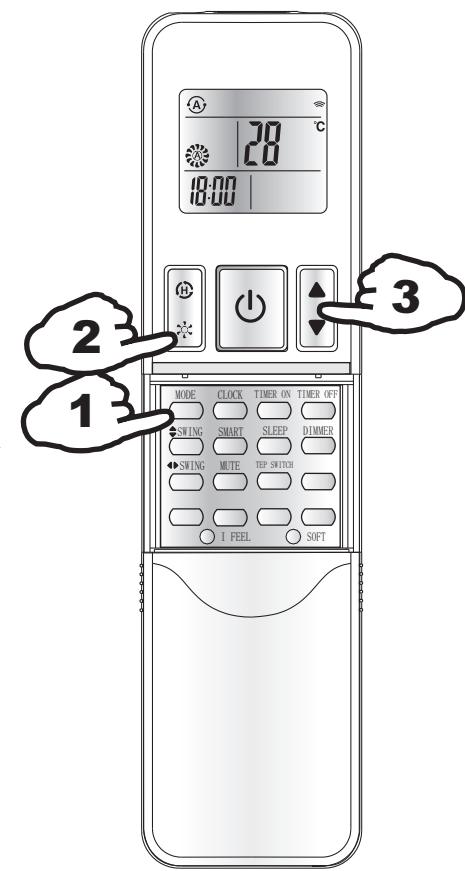
**Note:** Heating mode is NOT available for cooling only models.

SWING, SMART, TIMER ON, TIMER OFF, CLOCK, SLEEP and SUPER operation modes will be specified in the following pages.

• Changing modes during operation, sometimes the unit does not response at once. Wait 3 minutes.

• During heating operation, air flow is not discharged at the beginning. After 2–5 minutes, the air flow will be discharged until temperature of indoor heat exchanger rises.

• Wait 3 minutes before restarting the appliance.



# Operation instructions

## Airflow direction control

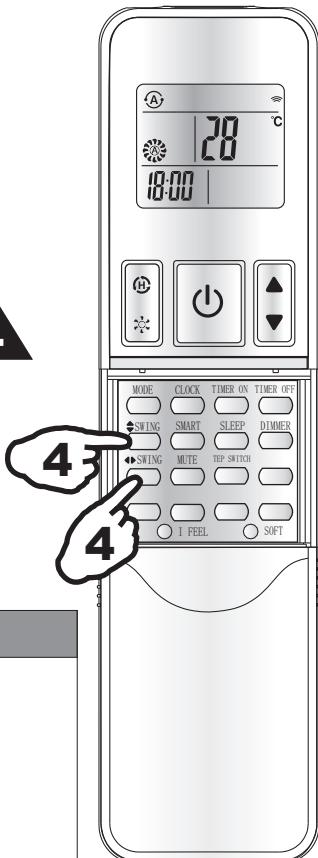
**Airflow direction control**

Horizontal and vertical airflow is automatically adjusted to a certain angle in accordance with the operation mode after turning on the unit.

Operation mode	Direction of airflow
COOLING, DRY	horizontal
*HEATING, FAN ONLY	downward

The direction of airflow can be also adjusted to your own requirement by pressing the "↔SWING" and the "↔SWING" button of the remote controller.

Note: Vertical airflow control is invalid for cassette type.



### Vertical airflow control (with the remote controller)

Using remote controller to set various angles of flow or specific angle as you like.

#### Swinging airflow

Pressing "↔SWING" button once, the horizontal adjustment louver will swing up and down automatically.

#### Desired direction airflow

Pressing the "↔SWING" button again when the louvers swing to a suitable angle as desired.

### Horizontal airflow control (with the remote controller)

Using remote controller to set various angles of flow or specific angle as you like.

#### Swinging airflow

Pressing "↔SWING" button once, the vertical adjustment louver will swing left and right automatically.

#### Desired direction airflow

Pressing the "↔SWING" button again when the louvers swing to a suitable angle as desired.



**A** Do not turn the horizontal adjustment louvers manually, otherwise malfunction may occur. If that happens, turn off the unit first and cut off the power supply, then restore power supply again.

**B** It is better not to let the horizontal adjustment louver tilt downward for a long time at COOLING or DRY mode to prevent condensed water from dripping.

# Operation instructions

## SMART mode

Press the **SMART** button, the unit enters **SMART** mode(fuzzy logic operation) directly regardless of the unit is on or off. In this mode, temperature and fan speed are automatically set based on the actual room temperature.

Operation mode and temperature are determined by indoor temperature

### Heat pump models

Indoor temperature	Operation mode	Target temperature
Below T-3°C	HEATING	T
T-3°C $\leq$ T <sub>indoor</sub> $\leq$ T+3°C	FAN ONLY	T
Over T+3°C	COOLING	T

### Cooling only models

Indoor temperature	Operation mode	Target temperature
T+3°C or below	FAN ONLY	T
Over T+3°C	COOLING	T

 SMART button is ineffective in SUPER mode.

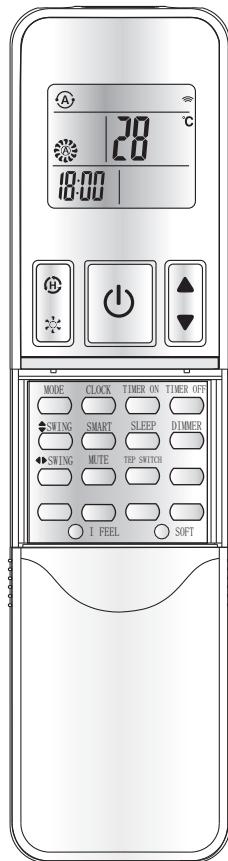
**Note: Temperature, airflow and direction are controlled automatically in SMART mode. However, a decrease or rise of up to 7 °C can be set with the remote controller if you still feel uncomfortable.**

### What you can do in SMART mode

Your feeling	button	adjustment procedure
Uncomfortable because of unsuitable air flow volume.		Indoor fan speed alternates among High, Medium and Low each time this button is pressed.
Uncomfortable because of unsuitable flow direction.		Press it once, the horizontal adjustment louver swings to change vertical airflow direction. Press it again, swings stops.
Uncomfortable because of unsuitable flow direction.		Press it once, the vertical adjustment louver swings to change horizontal airflow direction. Press it again, swings stops.

## CLOCK button

You can adjust the real time by pressing CLOCK button, then using  and  buttons to get the correct time, press CLOCK button again the real time is set.



# ***Operation instructions***

## **Timer mode**

It is convenient to set the timer on with **TIMER ON** buttons when you go out in the morning To achieve a comfortable room temperature at the time you get home. You can also set Timer off at night to enjoy a good sleep with **TIMER OFF**.

### ► **How to set TIMER ON**

TIMER ON button can be used to set the timer programming as wished in order to switch on the appliance at your desired time.

- i) Press TIMER ON button, "12:00 ON" flashes on the LCD, then you can press the  or  buttons to select your desired time for appliance on.

 Increase  
 Decrease



Press the  or  button once to increase or decrease the time setting by 1 minute.  
Press the  or  button 5 seconds to increase or decrease the time setting by 10 minute.  
Press the  or  button for a longer time to increase or decrease the time by 1 hour.

***Note: If you don't set the time in 5 seconds after you press TIMER ON button, the remote controller will exit the TIMER ON mode automatically.***

- ii) When your desired time displayed on LCD, press the TIMER ON button and confirm it.

***A "beep" can be heard.***

***"ON" stops flashing.***

***The TIMER indicator on the indoor unit lights up.***

- iii) After the set timer displayed for 5 seconds the clock will be displayed on the LCD of the remote controller instead of set timer.

### ► **How to cancel TIMER ON**

Press the TIMER ON button again, a "beep" can be heard and the indicator disappears, the TIMER ON mode has been cancelled.

***Note: It is similar to set TIMER OFF, you can make the appliance switch off automatically at your desired time.***

# Operation instructions

## SLEEP mode

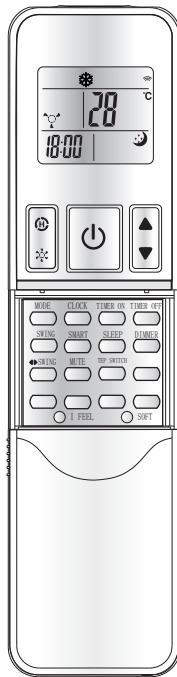
### SLEEP mode

**SLEEP** mode can be set in **COOLING**, **HEATING** or **DRYING** operation mode. This function gives you a more comfortable environment for sleep.

In **SLEEP** mode,

- The appliance will stop operation automatically after operating for 8 hours.

*Note: Heating is NOT available for cooling only air conditioner.*



## SUPER mode

(invalid for heating mode)

### SUPER mode

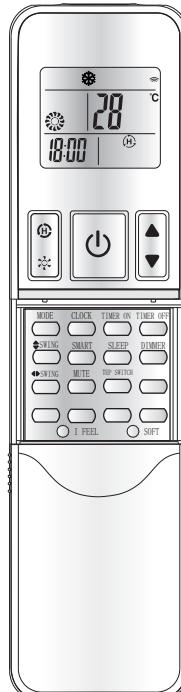
- **SUPER** mode is used to start or stop fast cooling.

Fast cooling operates at high fan speed, changing the set temperature automatically to 18°C.

- **SUPER** mode can be set when the appliance is in operation or energized.
- In **SUPER** mode, you can set airflow direction or timer. If you want to escape from **SUPER** mode, press any - **SUPER**, **MODE**, **FAN**, **ON/OFF** or **TEMPERATURE SETTING** button.

*Note:*

- **SLEEP** and **SMART** buttons are not available in **SUPER** mode.
- **SUPER** button is ineffective in **HEATING** mode.
- **The Appliance will continue working in SUPER mode with set temperature of 18°C, if you don't escape from it by pressing any of the buttons mentioned above.**



# Remote controller

## 4.2 Remote controller J1

The remote controller transmits signals to the system.

### 1 ON/OFF BUTTON

The appliance will be started when it is energized or will be stopped when it is in operation, if you press this button.

### 2 MODE BUTTON

Press this button to select the operation mode.

### 3 FAN BUTTON

Used to select fan speed in sequence auto, high, medium or low.

### 4 5 ROOM TEMPERATURE SETTING BUTTONS

Used to adjust the room temperature and the timer, also real time.

### 6 SMART BUTTON

Used to enter fuzzy logic operation directly, regardless of the unit is on or off.

### 7 ▲ SWING BUTTON

Used to stop or start horizontal adjustment louver swinging and set the desired up/down airflow direction.

### 8 SLEEP BUTTON

Used to set or cancel Sleep Mode operation.

### 9 I FEEL BUTTON

Used to start or stop the I feel mode. Press this button above 5 seconds, Turn off I FEEL mode. (In I feel mode, the Air Conditioner operates basis temperature sensor fitted in remote instead of machine, Advice to use I FEEL mode and the remote put where the indoor unit receive signal easily.)

### 10 CLOCK BUTTON

Used to set the current time.

### 11 12 TIMER ON/OFF BUTTON

Used to set or cancel the timer operation.

### 13 SUPER BUTTON

Used to start or stop the fast cooling/heating. (Fast cooling operates at high fan speed with 18°C set temp automatically ; Fast heating operates at auto fan speed with 32°C set temp automatically )

#### Indication symbols on LCD:

 Cooling indicator

 Auto fan speed

 Dry indicator

 High fan speed

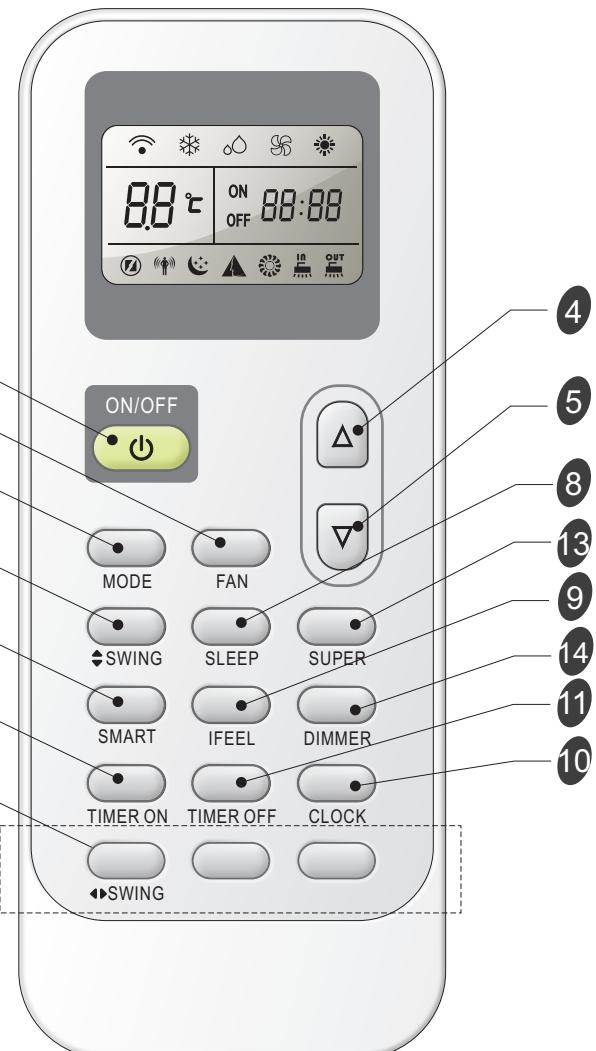
 Fan only indicator

 Medium fan speed

 Heating indicator

 Low fan speed

  Display is invalid



\*Note: Some remote controller models without buttons in the dashed circle.

### 14 DIMMER BUTTON

The screen brightness is decreased each time that button is pressed and it goes blank after pressing the button four times.

### 15 ▷ SWING BUTTON (invalid for this model)

Used to stop or start vertical adjustment louver swinging and set the desired left/right airflow direction.

 Smart indicator	 Signal transmit
 Sleep indicator	ON  Display set timer
 I feel	OFF  Display current time

 88 °C Display set temperature

Note: Each mode and relevant function will be further specified in following pages.

# Remote controller

## Remote controller

- **How to Insert the Batteries**

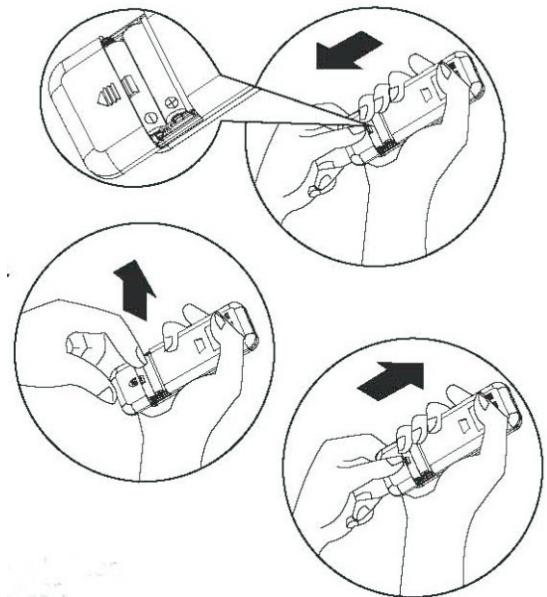
Remove the battery cover according to the arrow direction.

Insert new batteries making sure that the (+) and (-) of battery are matched correctly.

Reattach the cover by sliding it back into position.

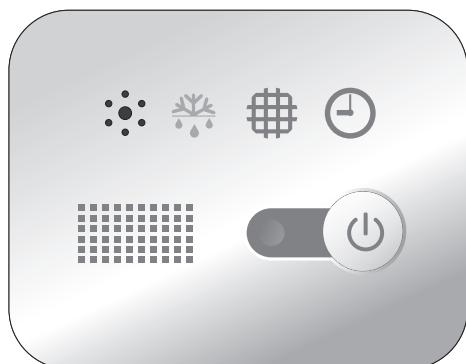
**Note:**

- Use 2 LR03 AAA(1.5volt) batteries. Do not use rechargeable batteries. Replace batteries with new ones of the same type when the display becomes dim.

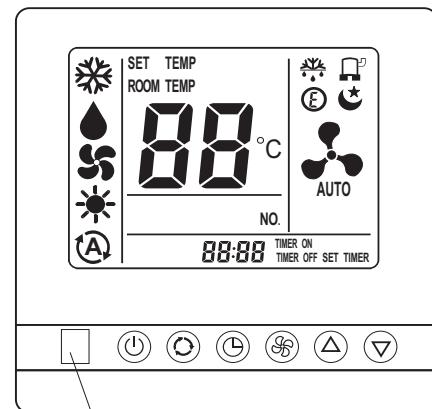


- **How to Use**

To operate the room air conditioner, aim the remote controller to the signal receptor. The remote controller will operate the air conditioner at a distance of up to 8m when pointing at signal receptor of indoor unit.



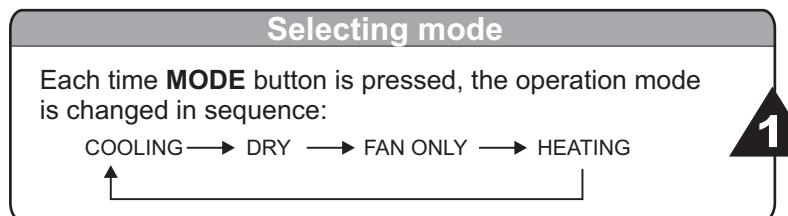
18K



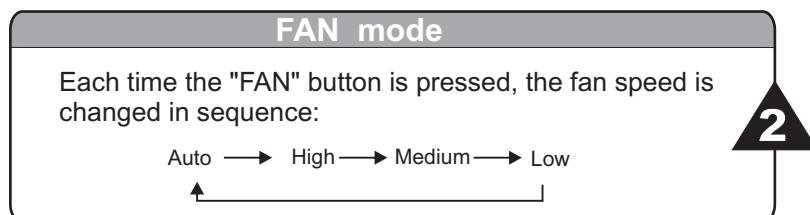
24K,36K,42K,48K,60K

# Operation instructions

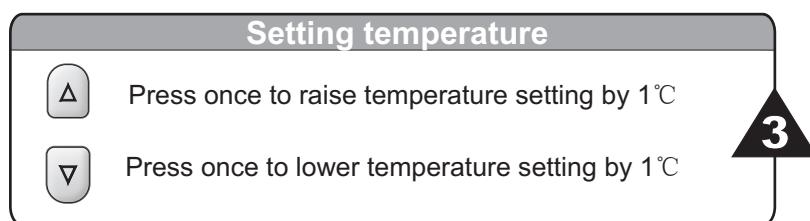
## Operation modes



Heating mode is NOT available for cooling only air conditioner.



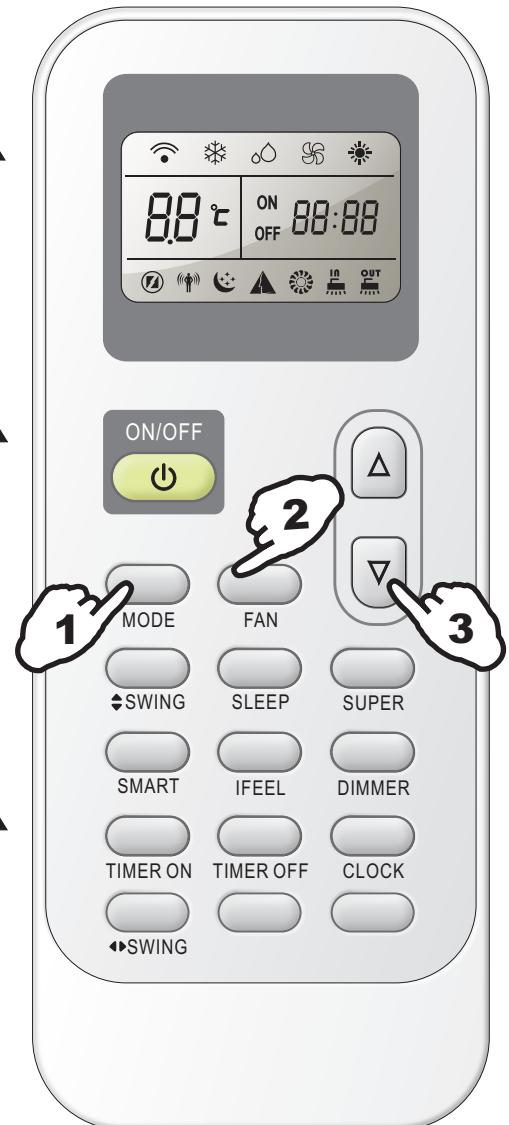
At "FAN ONLY" mode, only "High", "Medium" and "Low" are available. At "DRY" mode, Fan speed is set at "Low" automatically, "FAN" button is ineffective in this case.



Range of available set temperature

*HEATING, COOLING	18°C~32°C
FAN ONLY	unable to set

\*Note: Heating mode is NOT available for cooling only models.



**SWING, SMART, TIMER ON, TIMER OFF, CLOCK, SLEEP and SUPER operation modes will be specified in the following pages.**

• Changing modes during operation, sometimes the unit does not response at once. Wait 3 minutes.

• During heating operation, air flow is not discharged at the beginning. After 2–5 minutes, the air flow will be discharged until temperature of indoor heat exchanger rises.

• Wait 3 minutes before restarting the appliance.

# Operation instructions

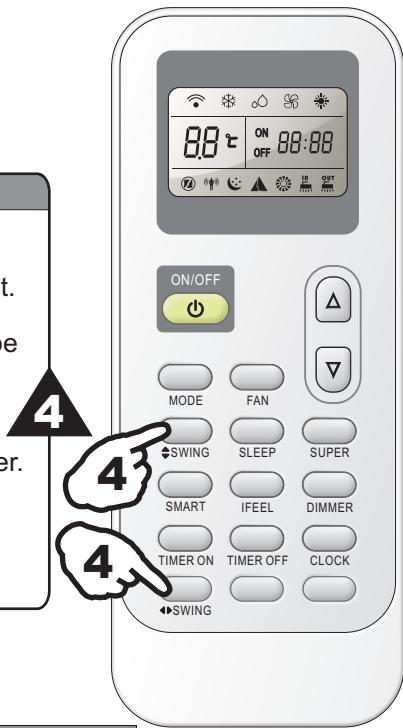
## Airflow direction control

Airflow direction control

Horizontal and vertical airflow is automatically adjusted to a certain angle in accordance with the operation mode after turning on the unit.

Operation mode	Direction of airflow
COOLING, DRY	horizontal
*HEATING, FAN ONLY	downward

The direction of airflow can be also adjusted to your own requirement by pressing the "↔SWING" and the "↔SWING" button of the remote controller.



Note: Horizontal airflow control is invalid for cassette type.

## Vertical airflow control (with the remote controller)

Using remote controller to set various angles of flow or specific angle as you like.

### Swinging airflow

Pressing "↑SWING" button once, the horizontal adjustment louver will swing up and down automatically.

### Desired direction airflow

Pressing the "↑SWING" button again when the louvers swing to a suitable angle as desired.

## Horizontal airflow control (with the remote controller)

Using remote controller to set various angles of flow or specific angle as you like.

### Swinging airflow

Pressing "↔SWING" button once, the vertical adjustment louver will swing left and right automatically.

### Desired direction airflow

Pressing the "↔SWING" button again when the louvers swing to a suitable angle as desired.



**A** Do not turn the horizontal adjustment louvers manually, otherwise malfunction may occur. If that happens, turn off the unit first and cut off the power supply, then restore power supply again.

**B** It is better not to let the horizontal adjustment louver tilt downward for a long time at COOLING or DRY mode to prevent condensed water from dripping.

# Operation instructions

## SMART mode

Press the **SMART** button, the unit enters **SMART** mode(fuzzy logic operation) directly regardless of the unit is on or off. In this mode, temperature and fan speed are automatically set based on the actual room temperature.

Operation mode and temperature are determined by indoor temperature		
Heat pump models		
Indoor temperature	Operation mode	Target temperature
Below $T-3^{\circ}\text{C}$	HEATING	T
$T-3^{\circ}\text{C} \leq T_{\text{indoor}} \leq T+3^{\circ}\text{C}$	FAN ONLY	T
Over $T+3^{\circ}\text{C}$	COOLING	T

Cooling only models		
Indoor temperature	Operation mode	Target temperature
$T+3^{\circ}\text{C}$ or below	FAN ONLY	T
Over $T+3^{\circ}\text{C}$	COOLING	T



**SMART** button is ineffective in **SUPER** mode.

**Note:** Temperature, airflow and direction are controlled automatically in **SMART** mode. However, a decrease or rise of up to  $7^{\circ}\text{C}$  can be set with the remote controller if you still feel uncomfortable.

What you can do in SMART mode		
Your feeling	button	adjustment procedure
Uncomfortable because of unsuitable air flow volume.		Indoor fan speed alternates among High, Medium and Low each time this button is pressed.
Uncomfortable because of unsuitable flow direction.		Press it once, the horizontal adjustment louver swings to change vertical airflow direction. Press it again, swings stops.
Uncomfortable because of unsuitable flow direction.		Press it once, the vertical adjustment louver swings to change horizontal airflow direction. Press it again, swings stops.

## CLOCK button

You can adjust the real time by pressing **CLOCK** button, then using and buttons to get the correct time, press **CLOCK** button again the real time is set.



# Operation instructions

## Timer mode

It is convenient to set the timer on with **TIMER ON** buttons when you go out in the morning. To achieve a comfortable room temperature at the time you get home. You can also set timer off at night to enjoy a good sleep with **TIMER OFF**.

### ► How to set TIMER ON

TIMER ON button can be used to set the timer programming as wished in order to switch on the appliance at your desired time.

- i) Press TIMER ON button, "ON 12:00" flashes on the LCD, then you can press the  or  buttons to select your desired time for appliance on.

 Increase  
 Decrease



Press the  or  button once to increase or decrease the time setting by 1 minute.

Press the  or  button one and a half seconds to increase or decrease the time setting by 10 minute.

Press the  or  button for a longer time to increase or decrease the time by 1 hour.

**Note:** If you don't set the time in 10 seconds after you press **TIMER ON** button, the remote controller will exit the **TIMER ON** mode automatically.

- ii) When your desired time displayed on LCD, press the TIMER ON button and confirm it.

A "beep" can be heard.

"ON" stops flashing.

The **TIMER** indicator on the indoor unit lights up.

- iii) After the set timer displayed for 5 seconds the clock will be displayed on the LCD of the remote controller instead of set timer.

### ► How to cancel TIMER ON

Press the TIMER ON button again, a "beep" can be heard and the indicator disappears, the TIMER ON mode has been cancelled.

**Note:** It is similar to set **TIMER OFF**, you can make the appliance switch off automatically at your desired time.

# Operation instructions

## SLEEP mode

### SLEEP mode

**SLEEP** mode can be set in **COOLING, HEATING, DRYING** operation mode. This function gives you a more comfortable environment for sleep.

In **SLEEP** mode,

- The appliance will stop operation automatically after operating for 8 hours.

**Note:** Heating is NOT available for cooling only air conditioner.



## SUPER mode

### SUPER mode

- **SUPER** mode is used to start or stop fast cooling/fast heating. Fast cooling operates at high fan speed, changing the set temperature automatically to 18°C; Fast heating operates at auto fan speed, changing the set temperature automatically to 32 °C.

▪ **SUPER** mode can be set when the appliance is in operation or energized.

- In **SUPER** mode, you can set airflow direction or timer. If you want to escape from **SUPER** mode, press **SUPER**, **MODE**, **FAN**, **ON/OFF**, **SLEEP** or **TEMPERATURE SETTING** button, the display will return to the original mode.

**Note:**

▪ **SMART** button is not available in **SUPER** mode.

▪ The Appliance will continue working in **SUPER** mode, if you don't escape from it by pressing any of the buttons mentioned above.

fast cooling



fast heating



4.3 | **Remote controller**—E4-07

The remote controller transmits signals to the system.

**1 ON/OFF BUTTON**

The appliance will be started when it is energized or will be stopped when it is in operation, if you press this button.

**2 MODE BUTTON**

Press this button to select the operation mode.

**3 FAN BUTTON**

Used to select fan speed in sequence auto, high, medium or low.

**4 5 ROOM TEMPERATURE SETTING BUTTONS**

Used to adjust the room temperature and the timer, also real time.

**6 SMART BUTTON**

Used to enter fuzzy logic operation directly, regardless of the unit is on or off.

**7 SWING BUTTON**

Used to stop or start vertical adjustment louver swinging and set the desired up/down airflow direction.

**8 SLEEP BUTTON**

Used to set or cancel Sleep Mode operation.

**9 I FEEL BUTTON**

Press this button, turn on IFEEL mode.

**10 CLOCK BUTTON**

Used to set the current time.

**11 12 TIMER ON/OFF BUTTON**

Used to set or cancel the timer operation.

**Indication symbols on LCD:**

※ Cooling indicator

█████ Auto fan speed

▲ Smart indicator

WiFi Signal transmit.

████ Dry indicator

█████ High fan speed

🌙 Sleep indicator

ON 88:88 Display set timer

████ Fan only indicator

████ Medium fan speed

████ I FEEL indicator

OFF 88:88 Display current time

████ Heating indicator

████ Low fan speed

※ Super indicator

88 °C Display set temperature

**13 SUPER BUTTON**

Used to start or stop the fast cooling.  
(Fast cooling operates at high fan speed with 18°C set temp automatically )

**Note:** When insert the batteries into the remote controller first time all of the signs appear on the LCD for several seconds ,then "Cooling" and "Heating" sign appears in turns , you can select "Heating" for heat pump models or "Cooling" for only cool models.

Each mode and relevant function will be further specified in following pages.

- **How to Insert the Batteries**

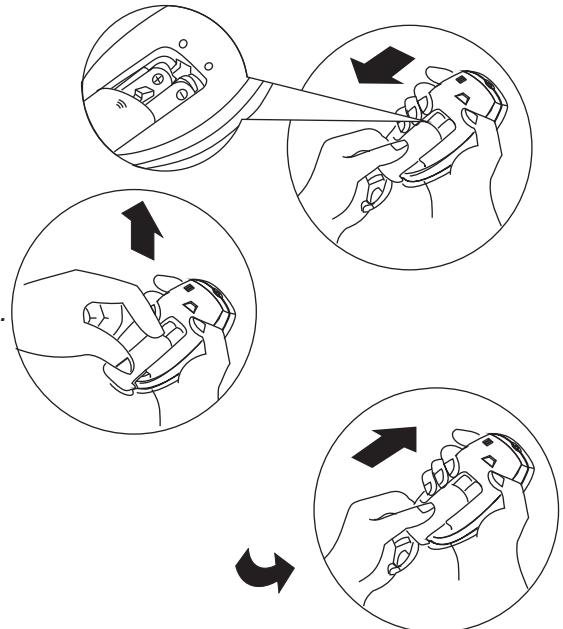
Remove the battery cover according to the arrow direction.

Insert new batteries making sure that the (+) and (-) of battery are matched correctly.

Reattach the cover by sliding it back into position.

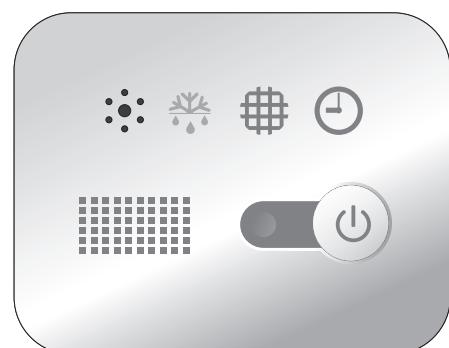
**Note:**

- Use 2 LR03 AAA(1.5volt) batteries. Do not use rechargeable batteries. Replace batteries with new ones of the same type when the display becomes dim.

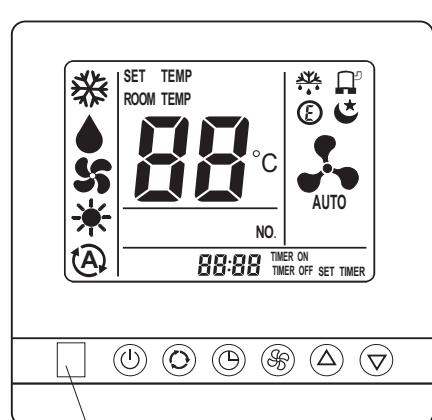


- **How to Use**

To operate the room air conditioner, aim the remote controller to the signal receptor. The remote controller will operate the air conditioner at a distance of up to 8m when pointing at signal receptor of indoor unit.

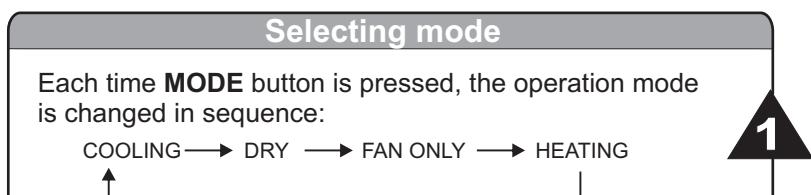


18K

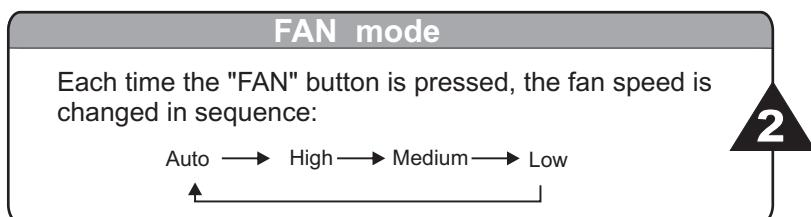


24K,36K,42K,48K,60K

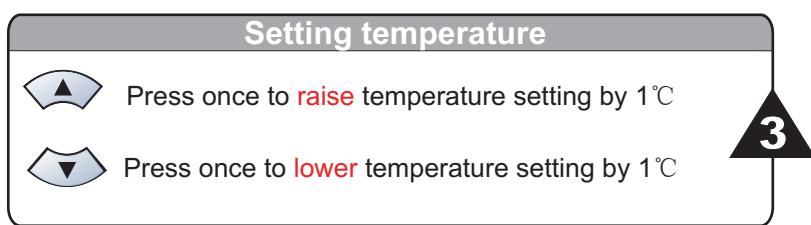
## 4. 3. 1 Operation mode



Heating mode is NOT available for cooling only air conditioner.

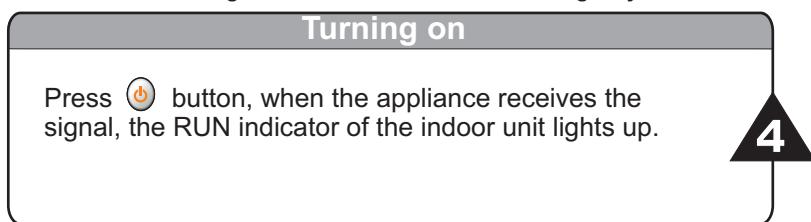


At "FAN ONLY" mode, only "High", "Medium" and "Low" are available. At "DRY" mode, Fan speed is set at "Auto" automatically, "FAN" button is ineffective in this case.



Range of available set temperature	
*HEATING, COOLING	18°C~32°C
FAN ONLY	unable to set

\*Note: Heating mode is NOT available for cooling only models.



**SWING, SMART, TIMER ON, TIMER OFF, SLEEP, CLOCK and SUPER** operation modes will be specified in the following pages.

- **Changing modes during operation, sometimes the unit does not response at once. Wait 3 minutes.**
- **During heating operation, air flow is not discharged at the beginning. After 2–5 minutes, the air flow will be discharged until temperature of indoor heat exchanger rises.**
- **Wait 3 minutes before restarting the appliance.**



#### 4. 3. 2 Airflow direction control

**Airflow direction control**

Vertical airflow is automatically adjusted to a certain angle in accordance with the operation mode after turning on the unit.

Operation mode	Direction of airflow
COOLING, DRY	horizontal
*HEATING, FAN ONLY	downward

The direction of airflow can be also adjusted to your own requirement by pressing the "SWING" button of the remote controller.

*\*Heating mode is only available for heat pump models.*

5



**Vertical airflow control (with the remote controller)**

Using remote controller to set various angles of flow or specific angle as you like.

**Swinging airflow**

Pressing "SWING" button once, the horizontal adjustment louver will swing up and down automatically.

**Desired direction airflow**

Pressing the "SWING" button again when the louvers swing to a suitable angle as desired.



**A** Do not turn the horizontal adjustment louvers manually, otherwise malfunction may occur. If that happens, turn off the unit first and cut off the power supply, then restore power supply again.

**B** It is better not to let the horizontal adjustment louver tilt downward for a long time at COOLING or DRY mode to prevent condensed water from dripping.

#### 4. 3. 4 SMART mode

Press the **SMART** button, the unit enters **SMART** mode(fuzzy logic operation) directly regardless of the unit is on or off. In this mode, temperature and fan speed are automatically set based on the actual room temperature.



SMART button is ineffective in SUPER mode.

**Note:** Temperature, airflow and direction are controlled automatically in SMART mode. However, a decrease or rise of up to 7 °C can be set with the remote controller if you still feel uncomfortable.

What you can do in SMART mode		
Your feeling	button	adjustment procedure
Uncomfortable because of unsuitable air flow volume.		Indoor fan speed alternates among High, Medium and Low each time this button is pressed.
Uncomfortable because of unsuitable flow direction.		Press it once, the horizontal adjustment louver swings to change vertical airflow direction. Press it again, swings stops.

#### 4. 3. 5 CLOCK button

You can adjust the real time by pressing CLOCK button, then using and buttons to get the correct time, press CLOCK button again the real time is set.



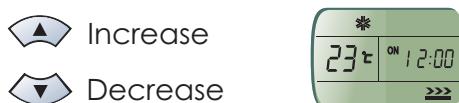
#### 4. 3. 5 **Timer mode**

It is convenient to set the timer on with **TIMER ON** button when you go out in the morning. To achieve a comfortable room temperature at the time you get home. You can also set timer off with **TIMER OFF** button at night to enjoy a good sleep. .

##### ► How to set **TIMER ON**

**TIMER ON** button can be used to set the timer programming as wished in order to switch on the appliance at your desired time.

- i) Press **TIMER ON** button, "ON 12:00" flashes on the LCD, then you can press the  or  button to select your desired time for appliance on.



Press the  or  button once to increase or decrease the time setting by 1 minute. Press the  or  button one and a half seconds to increase or decrease the time setting by 10 minute. Press the  or  button for a longer time to increase or decrease the time by 1 hour.

**Note:** If you don't set the time in 10 seconds after you press **TIMER ON** button, the remote controller will exit the **TIMER ON** mode automatically.

- ii) When your desired time displayed on LCD, press the **TIMER ON** button and confirm it.

**A "beep" can be heard.**

**"ON" stops flashing.**

**The **TIMER** indicator on the indoor unit lights up.**

- iii) After the set timer displayed for 5 seconds the clock will be displayed on the LCD of the remote controller instead of set timer.

##### ► How to cancel **TIMER ON**

Press the **TIMER ON** button again, a "beep" can be heard and the indicator disappears, the **TIMER ON** mode has been cancelled.

**Note:** It is similar to set **TIMER OFF**, you can make the appliance switch off automatically at your desired time.

4. 3. 6 **SLEEP mode****SLEEP mode**

**SLEEP** mode can be set in **COOLING, HEATING, DRYING** or **SMART** operation mode.

This function gives you a more comfortable environment for sleep.  
In **SLEEP** mode,

- The appliance will stop operation automatically after operating for 8 hours.

*\*Note: Heating is NOT available for cooling only air conditioner.*

4. 3. 7 **SUPER mode****SUPER mode**

- **SUPER** mode is used to start or stop fast cooling.  
Fast cooling operates at high fan speed, changing the set temperature automatically to 18°C.
- **SUPER** mode can be set when the appliance is in operation or energized.
- In **SUPER** mode, you can set airflow direction or timer. If you want to escape from **SUPER** mode, press any - **SUPER**, **MODE**, **FAN**, **ON/OFF** or **TEMPERATURE SETTING** button.

**Note:**

- **SLEEP** and **SMART** buttons are not available in **SUPER** mode.
- **SUPER** button is ineffective in **HEATING** mode.
- **The Appliance will continue working in SUPER mode with set temperature of 18°C, if you don't escape from it by pressing any of the buttons mentioned above.**



### 5. Before Operation

#### CAUTION

- Supply electrical power to system for approximately 12 hours before start-up after long shutdown.
- Do not start the system immediately after power supply, it may cause a compressor failure, because the compressor is not heated well.
- Make sure that the outdoor unit is not covered with snow or ice. If covered, remove it by using hot water (approximately 50°C). If the water temperature is higher than 50°C, it will cause damage to plastic parts.
- When the system is started after a shutdown longer than approximately 3 months, it is recommended that the system be checked by your service contractor.
- Turn OFF the main switch when the system is stopped for a long period of time. If the main switch is not turned OFF, electricity is consumed because the oil heater is always energized during compressor stopping.

### 6. Special remarks

- 3 minutes protect after compressor stop  
For protect compressor, there are at least 3 minutes stopping after compressor stop.
- 5 minutes protect  
Compressor must run 5 minutes at least once running. In the 5 minutes, compressor will not stop even the room temperature reaches the setting point unless you use remote to turn off the unit(all indoor unit be turned off by user).
- Cooling operation  
In cooling mode, the temperature can be set between 18°C—32°C .  
The fan of the indoor unit will never stop running. It remains running even if the compressor stops working.
- Heating operation  
Since the air conditioner carries out the heating operation by drawing on the heat of the outside air (through heating pump), the heating capacity may decrease if the temperature outside the room is too low. If the heating effect is not so satisfying, use some other heating device together.
- Anti-freezing function during cooling  
When the temperature of the air from the indoor outlet is too low, the unit will run for some time under the fan mode, to avoid frost or ice forming in the indoor heat exchanger.
- Cold air prevention  
In several minutes after the heating mode is started, the fan of the indoor unit will not run until the heat exchanger of the indoor unit reaches a high enough temperature. That is because cold air prevention system is operating.
- Defrosting  
When the outdoor temperature is too low, frost or ice may form in the outdoor heat exchanger, reducing heating performance. When this happens, a defrosting system of the air conditioner will operate. At the same time the fan in the indoor unit stops(or runs at a very low speed in some cases), a few minutes later, the defrosting is over, and the heating operation restarts.
- Blow out the survival heating air  
When stop the air conditioner in normal operation, the fan motor would run in low speed for a while to blow out the survival heating air.
- Self Recovery of Power Break  
When the power supply is recovered after break, all preset are still effective and the air-conditioner can run according to the original setting.

### 7. Setting of Automatic Swing Louver

#### Wire Remote control

When the SWING switch is pressed 3S longer, the swing louver starts its operation. The swing louver stops, when the SWING switch is pressed 3S longer again.

#### Wireless Remote control

When the SWING switch is pressed, the swing louver starts its operation. The swing louver stops, when the SWING switch is pressed again.

#### CAUTION

**Do not turn the air louver by hand, If moved, the louver mechanism will be damaged.**

### 8.Filter Cleaning

#### ! CAUTION

Do not operate the system without air filter to protect the indoor unit heat exchanger against being clogged.

Turn OFF the main power switch before taking out the filter.(The previous operation mode may appear.)

#### 8.1 Setting the Cleaning Period of Filter

##### Step 1:

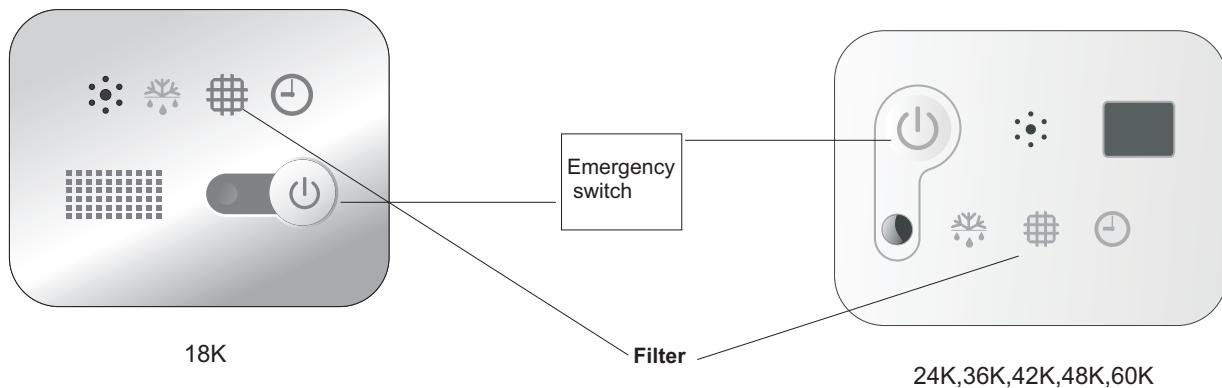
Enter choose and set mode.

It is time to clean the filter, When the light of "Filter" turn on.

##### Step 2:

Cancel the setting

Press Emergency switch to return to the standard state.



#### 8.2 Take Out the Filter

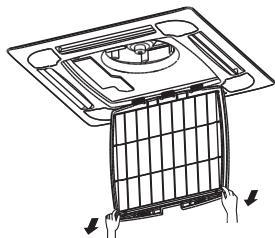
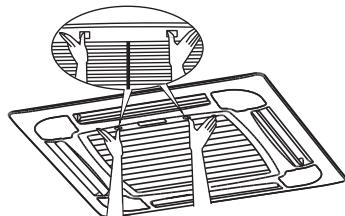
Take out the air filter according the following steps.

##### Step1

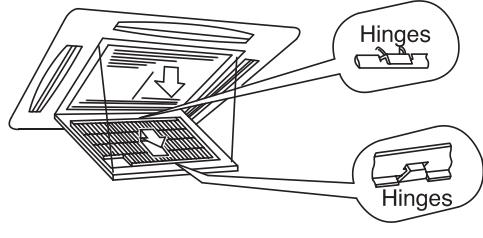
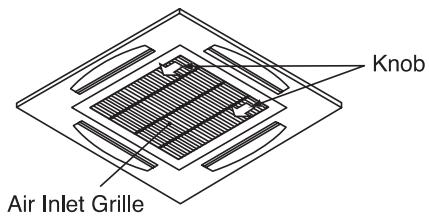
Open the air inlet grille after pushing the two knobs as shown by the arrow mark.

##### Step2

Take out the air filter from the air inlet grille by supporting the air grille and lifting the air filter after detaching the filter from the hinges.



18K



24K,36K,42K,48K,60K

### 8.3 Clean the Filter

Clean the air filter according to the following Steps.

#### Step 1

Use a vacuum cleaner or let water flow onto the air filter for removing the dirt from the air filter.



**Do not use hot water higher than approximately 40°C.**

#### Step2

Dry the air filter in the shade after shaking off moisture.

### 8.4 Reset of Filter indication

After cleaning the air filter, press the "Emergency switch" button. The FILTER indication will disappear and the next filter cleaning time will be set.

## 9.Troubleshooting



**When overflow of drain water from the indoor unit occurs, stop the operation and contact your contractor.**

**When you smell or see white smoke coming from the unit, turn OFF the main power supply and contact your contractor.**

### 9.1 If Trouble Still Remains ...

If the trouble still remains even after checking the following, contact your contractor and inform them of the following items.

- (1)Unit Model Name
- (2)Content of Trouble

### 9.2 No Operation

Check whether the SET TEMP is set at the correct temperature.

### 9.3 Not Cooling or Heating Well

- Check for obstruction of air flow of outside or inside units.
- Check if too much heat source exists in the room.
- Check if the air filter is clogged with dust.
- Check to see if the doors or windows are opened or not.
- Check if the temperature condition is not within the operation range.

### 9.4 This is Not Abnormal

#### ● Smells from indoor unit

Smell adheres on indoor unit after a long period of time. Clean the air filter and panels or allow a good ventilation.

#### ● Sound from Deforming Parts

During system starting or stopping, an abrading sound might be heard. However, this is due to thermal deformation of plastic parts. It is not abnormal.

#### ● Steam from Outdoor Heat Exchanger

During defrosting operation, ice on the outdoor heat exchanger is melted, resulting in making steam.

#### ● Dew on Air Panel

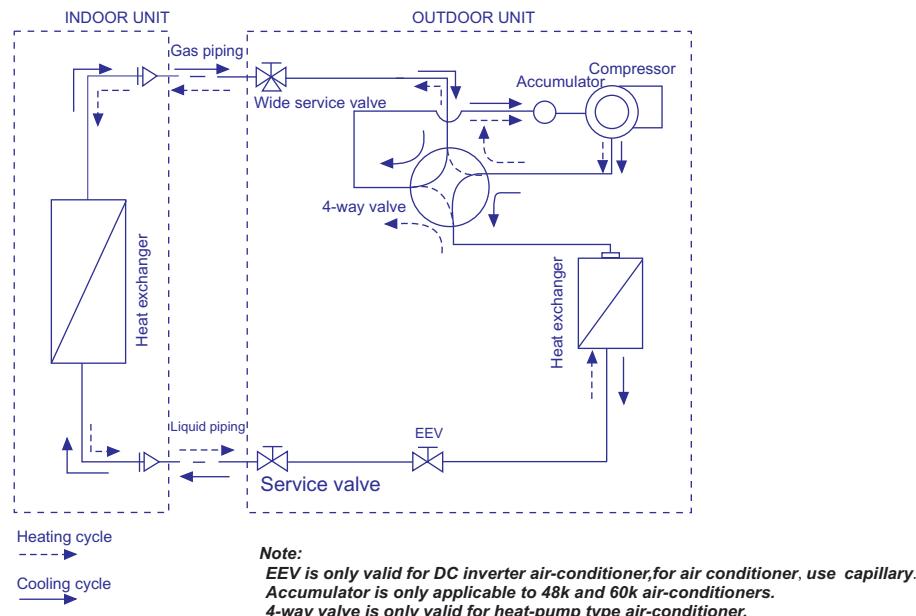
When the cooling operation continues for a long period of time under high humidity conditions (higher than 27°C/80%R.H.), dew can form on the air panel.

#### ● Refrigerant Flow Sound

While the system is being started or stopped, sound from the refrigerant flow may be heard.

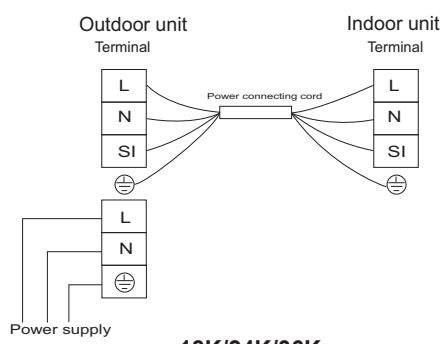
## Diagram of refrigerant cycle

### 1. REFRIGERANT FLOW DIAGRAM

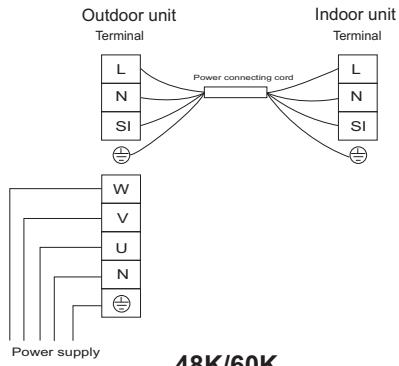


### 2. ELECTRICAL WIRING DIAGRAM

#### DC INVERTER UNITARY TYPE:

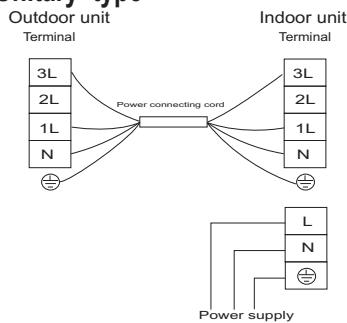


18K/24K/36K



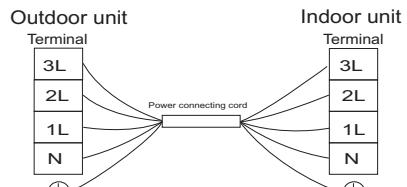
48K/60K

#### Cooling Only Unitary type

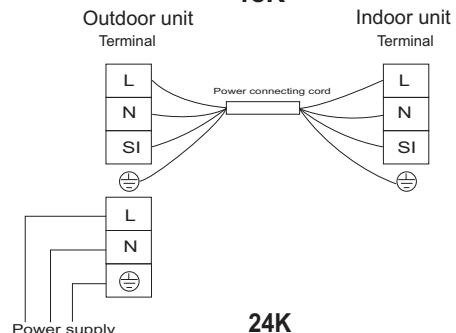


18K

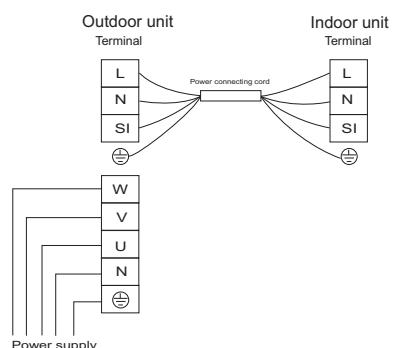
#### ON/OFF UNITARY TYPE:



18K



24K



36K/42K/48K/60K

### 1. Safety Notice

#### **CAUTION**

- Installation should be left to the dealer or another professional person. (Improper installation may cause water leakage, electrical shock, or fire.)
- Install the unit according to the instruction given in this manual. (Incomplete installation may cause water leakage, electrical shock, or fire.)
- Be sure to use the supplied or specified installation parts. (Use of other parts may cause the unit to come to lose, water leakage, electrical shock, or fire.)
- Install the air conditioner on a solid base that can support the unit weight. (An inadequate base or incomplete installation may cause injury in the event the unit falls off the base. )
- Electrical work should be carried out in accordance with the installation manual and the local national electrical wiring rules or code of practice.(Insufficient capacity or incomplete electrical work may cause electrical shock or fire. )
- Be sure to use a dedicated power circuit. (Never use a power supply shared by another appliance. )
- For wiring ,use a cable long enough to cover the entire distance with no connection, do not use an extension cord.
- Do not put other loads on the power supply , use a dedicated power circuit. (Failure to do so may cause abnormal heat, electric shock or fire.)
- Use the specified types of wires for electrical connections between the indoor and outdoor units. (Firmly clamp the interconnecting wires so their terminals receive no external stresses.)
- Incomplete connections or clamping may cause terminal overheating or fire.
- After connecting interconnecting and supply wiring be sure to shape the cables so that they do not put undue force on the electrical covers or panels. (Install covers over the wires, incomplete cover installation may cause terminal overheating, electrical shock or fire.)
- When installing or relocating the system, be sure to keep the refrigerant circuit free from substances other than the specified refrigerant (refer to nameplate) ,such as air. (Any presence of air or other foreign substance in the refrigerant circuit causes an abnormal pressure rise or rupture, resulting in injury.)
- If any refrigerant has leaked out during the installation work, ventilate the room. (The refrigerant reduces a toxic gas if exposed to flames.)
- After all installation is completed, check to make sure that no refrigerant is leaking out. (The refrigerant produces a toxic gas if exposed to flames.)
- When carrying out piping connection, take care not to let air substances other than the specified refrigerant go into refrigeration cycle. (Otherwise, it will cause lower capacity, abnormal high pressure in the refrigeration cycle, explosion and injury. )
- Be sure to establish an earth. do not earth the unit to a utility pipe, arrester, or telephone earth. Incomplete earth may cause electrical shock. (A high surge current from lightning or other sources may cause damage to the air conditioner.)
- An earth leakage circuit breaker may be required depending on site condition to prevent electrical shock. (Failure to do so may cause electrical shock. )
- Disconnect the power supply before completion of wiring, piping , or checking the unit.
- When moving the indoor unit and outdoor unit , please be careful .do not make the outdoor unit incline over 45 degree. Please avoid to be hurt by the sharp edge of the air conditioner.
- Install the remote controller: Be sure that the length of the wire between the indoor unit and remote controller is within 50 meters.

#### **CAUTION**

- Do not install the air conditioner in a place where there is danger of exposure to inflammable gas leakage. (If the gas leaks and builds up around the unit, it may catch fire.)
- Establish drain piping according to the instructions of this manual. (Inadequate piping may cause flooding.)
- Tighten the flare nut according to the specified method such as with a torque wrench. (If the flare nut is tightened too hard, the flare nut may crack after a long time and cause refrigerant leakage.)

## 2. The Tools and Instruments for Installation

Number	Tool	Number	Tool
1	Standard screwdriver	8	Knife or wire stripper
2	Vacuum pump	9	Gradienter
3	Charge hose	10	Hammer
4	Pipe bender	11	Churn drill
5	Adjustable wrench	12	Tube expander
6	Tube cutter	13	Inner hexagon spanner
7	Cross head screw-driver	14	Tape measure

## 3. The Installation of the Indoor Unit

### **! DANGER**

Do not install the indoor unit in a flammable environment to avoid fire or an explosion.

### **! WARNING**

- Check to ensure that the ceiling slab is strong enough. If not strong enough the indoor units may fall down on you.
- Do not install the indoor unit outdoors. If installed outdoors, an electric hazard or electric leakage will occur.

### 3. 1 The Initial Check

- Install the indoor unit with a proper clearance around it for operation and maintenance working space, as shown in Fig. 3.1.
- Provide a service access door near the unit piping connection area on the ceiling.
- Check to ensure that the ceiling has a sufficient strength to hang the indoor unit.
- Check the ceiling surface is flat for the air panel installation work.

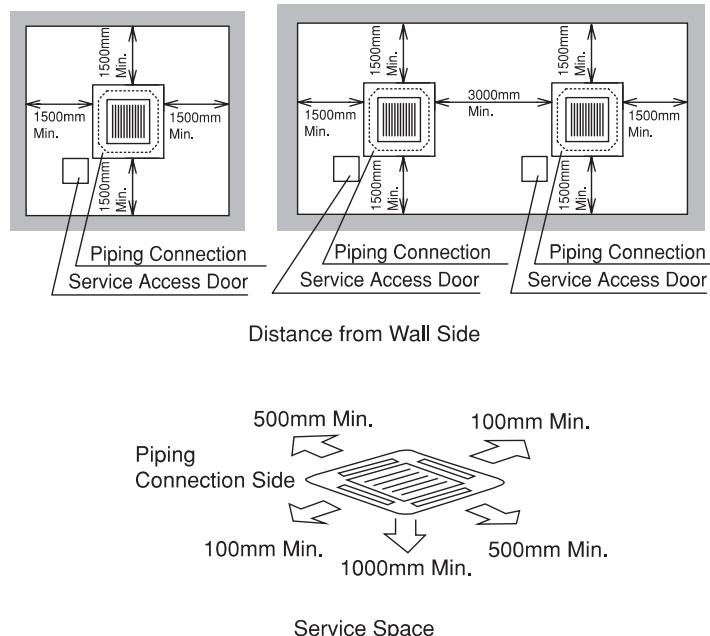


Fig. 3.1 Space around Indoor Unit

- Select the installation location as follows Fig 3.2 :
- (A) Minimum Space
- (B) Down Slope Pitch of Drain Piping: 1/25~1/100

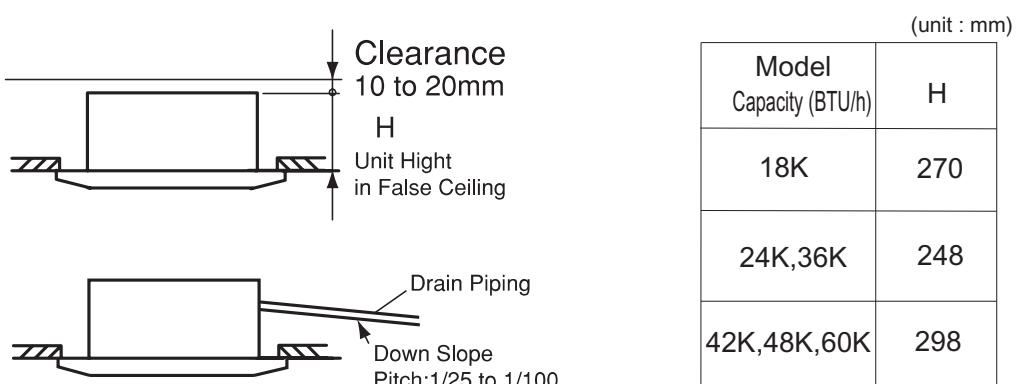


Fig. 3.2 Installation Location of Indoor Unit

- Consider the air distribution from the indoor unit to the space of the room, and select a suitable location so that uniform air temperature in the room can be obtained. It is recommended that the indoor unit be installed 2.3 to 3 meters from the floor level. If the unit is installed higher than 3 meters, it is also recommended that the setting of increasing fan speed or 3-way Outlet Parts set (Option) be utilized so that uniform air distribution is available.
- Do not install flammable parts in the service space for the indoor unit.
- Avoid obstacles which may hamper the air intake or the air discharge flow.

- Do not install the indoor unit in a machinery shop or kitchen where vapor from oil or its mist flows to the indoor unit. The oil will deposit on the heat exchanger, thereby reducing the indoor unit performance, and may deform and in the worst case, break the plastic parts of the indoor unit.
- Pay attention to the following points when the indoor unit is installed in a hospital or other facilities where there are electronic waves from medical equipment, etc.
  - (A) Do not install the indoor unit where the electromagnetic wave is directly radiated to the electrical box, remote control cable or remote control switch.
  - (B) Install the indoor unit and components as far as practical or at least 3 meters from the electromagnetic wave radiator.
  - (C) Prepare a steel box and install the remote control switch in it. Prepare a steel conduit tube and wire the remote control cable in it. Then, connect the ground wire with the box and the tube.
  - (D) Install a noise filter when the power supply emits harmful noises.
- To avoid any corrosive action to the heat exchanger, do not install the indoor unit in an acid or alkaline environment. In an application where the indoor unit is to be utilized under such environmental conditions, it is recommended that the corrosion-proof type unit be used.

### **⚠ WARNING**

Check to ensure that the number of below is within 0.3kg/cm<sup>3</sup>. Otherwise it may cause danger situation if the refrigerant in the Outdoor Unit leaks into the room where this Indoor Unit is installed.

$$\frac{(\text{Total Refrigerant Quantity per one Outdoor Unit})}{(\text{Volume of the room where this Indoor Unit is installed.})} \leq 0.3\text{kg/m}^3$$

In detail, refer to the Installation Manual for outdoor unit.

### 3. 2 Installation (24K, 36K, 42K, 48K, 60K)

#### 3. 2. 1 Opening of False Ceiling and Suspension Bolts

- (1) Determine the final location and installation direction of the indoor unit paying careful attention to the space for the piping, wiring and maintenance.
- (2) Cut out the area for the indoor unit in the false ceiling and install suspension bolts, as shown in Fig. 3. 3.

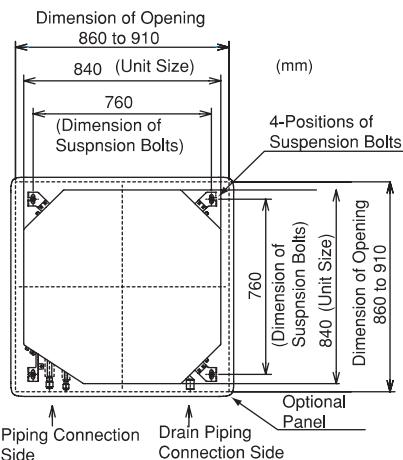
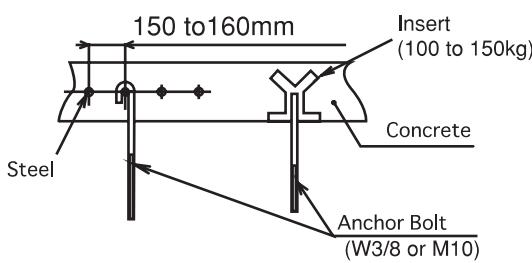


Fig. 3. 3 Opening of False Ceiling and Suspension Bolts

- (3) Check to ensure that the ceiling is horizontally level, otherwise drainage can not flow.
- (4) Strengthen the opening parts of the false ceiling.
- (5) Mount suspension bolts, as shown in Fig. 3. 4.

- For Concrete Slab



- For Steel Beam

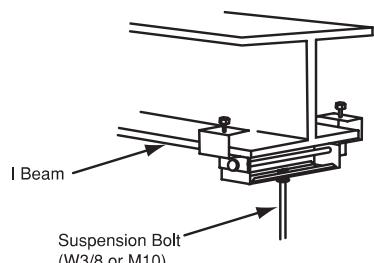
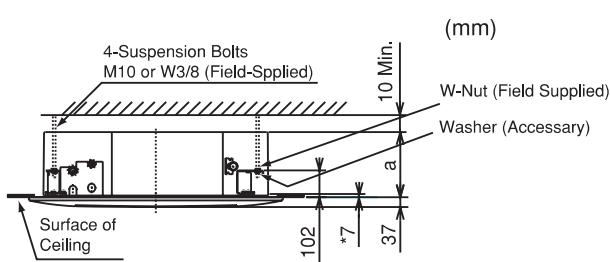


Fig. 3. 4. Mounting Suspension Bolts

#### 3. 2. 2 Mounting Position of the Indoor Unit



\* indicates the dimension between lower face of indoor unit and surface of ceiling.

Model	a
24K,36K	248
42K,48K,60K	298

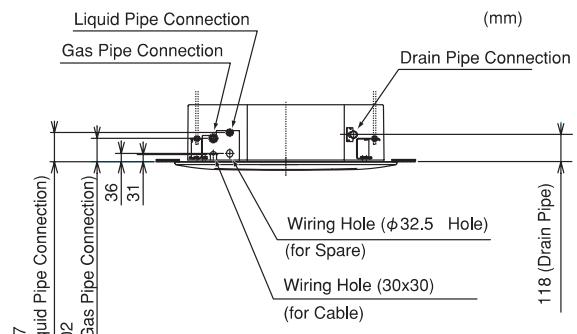


Fig. 3. 6 Indoor Unit and Air Panel

### 3.2.3 Mounting the Indoor Unit

- Mount the nuts and washers to the suspension bolts.

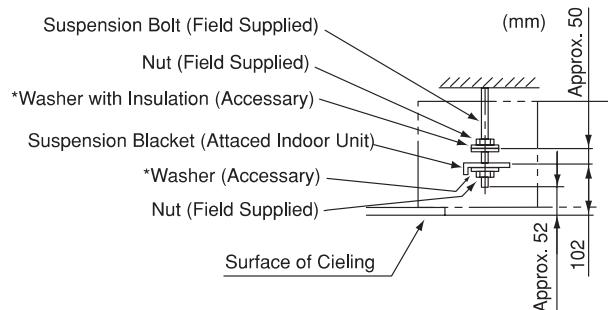


Fig. 3.7 Mounting Nuts and washer

\*Put the washer so that the surface with insulation can faces downwards.

- Lift the Indoor Unit by hoist, and do not put any force on the drain pan.
- Secure the indoor unit using the nuts, washer.

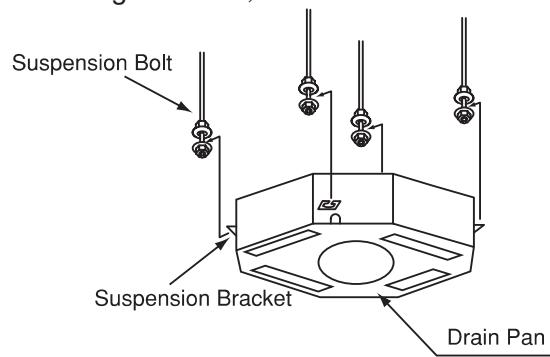


Fig. 3.8 Mounting the Indoor Unit

**NOTE:** If a false ceiling has already been installed, complete all piping and wiring work inside the ceiling before hooking-up the indoor unit.

### 3.2.4 Adjusting the Space between Indoor Unit and False Ceiling Opening

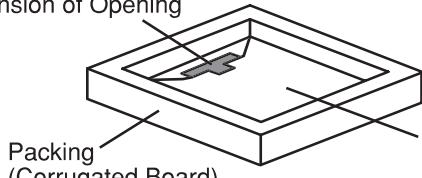
#### **CAUTION**

- Check the level of the drain pan using a water level to avoid incorrect operation of the drain discharge mechanism in the indoor unit. The drain piping side of the indoor unit must be approximately 5mm lower than the other part.
- Tighten the nuts of the suspension brackets after the adjustment is completed. Apply LOCK-TIGHT paint\* to the bolts and nuts in order to prevent them from loosening. If not done, abnormal noises or sounds may occur and the indoor unit may fall down.

LOCK-TIGHT paint\*: Paint the lock bolts and nuts. Adjust the indoor unit to the correct position while checking with the checking scales (factory-supplied).

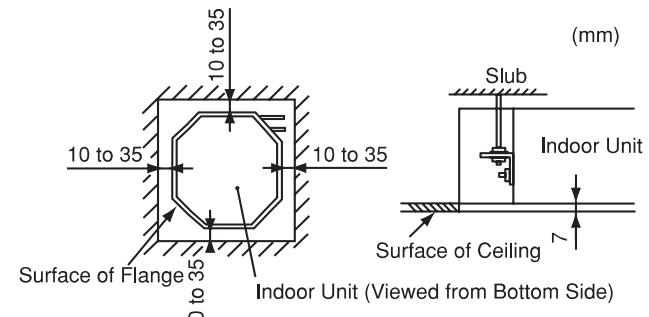
- Pattern Board for installation is printed on the packing. Cut off the checking scale for dimension of opening from packing.
- Adjust the position of indoor unit, as shown below by using checking scale .

Checking Scale for Dimension of Opening



Pattern Board for Installation

Packing (Corrugated Board)



a .For Ceiling already Completed with Panels

Attach the scale to the bottom side of the unit.

Attach the scale to the face of ceiling.

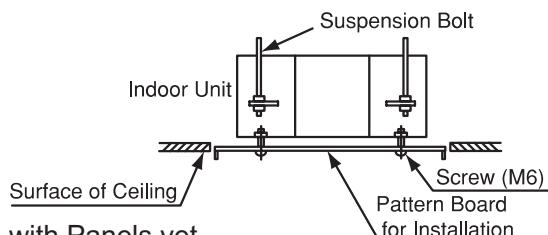
Checking Scale for Dimension of Opening

Adjust the height of the ceiling and the unit at each corner.  
Check the dimension of opening at each side.

Pattern Paper for Installation

Dimension for Opening

Dimension for Opening



b . Ceiling not Completed with Panels yet

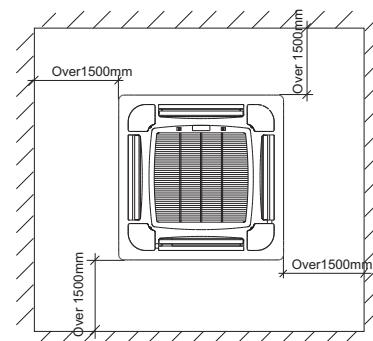
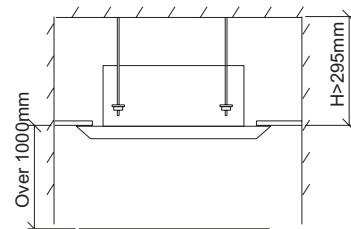
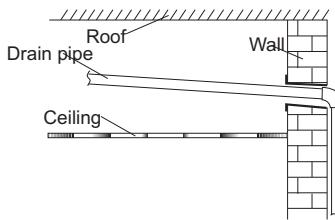
### Installation Details for Air Panels

- The details of installation work for air panel shall be according to the Installation Manual for Air Panel.
- Check to ensure that the connection of connectioner between the indoor unit and the air plane.

### 3. 3 Installation (18K)

#### 3.3.1 Location for installing indoor unit

- Where there is no obstacle near the air outlet and air can be easily blown to every corner.
- Where drain pipe can extend outside of the wall from the ceiling board. It is preferable to have a special draining facility.
- Where the roof is strong enough to bear the weight of indoor unit, and it is not tend to increasing operation sound and vibration.
- Keep the required space from the unit to the ceiling, ground and wall as the right figure shown.
- Do not put anything near the air inlet grill to obstruct it from air absorption.
- Keep the unit and remote controller 1m or more apart from television, radio etc.
- To prevent the effects of a fluorescent lamps, keep the main unit from it at least 1.5m.
- The maximum connecting piping length between indoor and outdoor units is 15m, and the maximum elevation between the units is 7.5m.
- Avoid installing at a place of greasy dirt or steam.



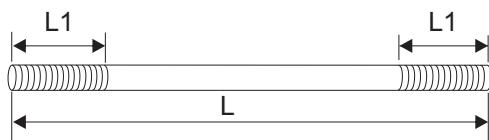
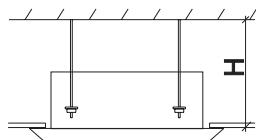
#### 3.3.2 Height of ceiling board

- Normally, keep it ceiling board 2m-3.5m above the ground.

#### 3.3.3 Indoor unit installation

(Note: Below reference is only applicable to a house made of concrete.)

- Measure the distance  $H$  between the roof surface and the ceiling board ;
- Make four suspending poles with M10 screw thread on both ends (metric system) as the below figure shown.(processed with  $\Phi 10$  pole)



Value of  $L$  and  $L1$  are calculated as below:

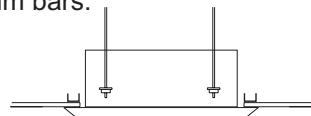
$$L1 = 50\text{mm} \text{ (when } H < 255\text{mm, } L1 = 40\text{mm)}$$

$$L = 1.5L1 + H - 230 \text{ (unit: mm)}$$

- Turn 4 attached nuts onto the thread ends on the suspending poles as shown below:

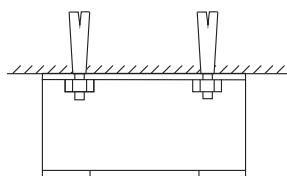


- Take out the moulding board from the packing carton of indoor unit, do not fold it, just use it to decide an installation location and direction of the unit on the roof and ceiling. Press the moulding board tightly onto the surface of the roof, draw out the hole position for expand bolt with a pencil, then take off the moulding board, drill 8 holes for the expand bolts. It is preferable if the depth of holes just reveal the thread of the poles.
- Cut an opening (AxB) on the ceiling board with assistance of the moulding board, make sure to follow the same direction of the holes for roof bolts. Fix the edges of the opening with the L-shaped aluminum bars.

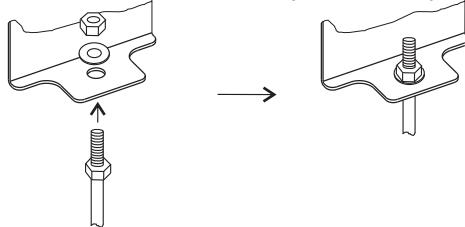


Model	A	B
18K	400	610

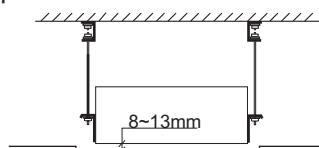
- Mount the attached suspending brackets with expand bolts M8X50 on the roof surface. Make sure to tighten the expand bolts and nuts well. The opening of suspending brackets should face outward as shown below.



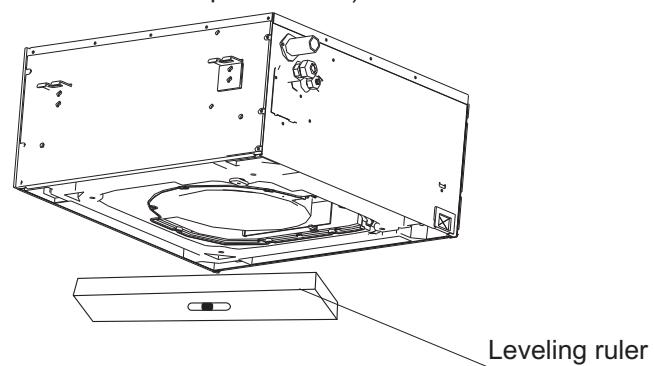
- Take out the suspending poles with nut on one end, mount them on the fixed suspending bracket, then tighten the nuts and washers on the top of the suspending brackets.



- Fix the main unit onto the suspending poles with attached nuts and washer. The nuts on the bottom should turn to about half of the thread length.  
( Note: This procedure needs at least 2 persons together.)



- Adjust the nuts on the bottom of the suspending poles, allow the bottom of the unit 8-13mm higher than that of the ceiling board. (as the above figure shown) Then adjust each corner of the bottom horizontally with a leveling ruler.  
( Levelness should be within the scope of 1/100.)



### 4. The Installation of outdoor Unit

#### 4.1 The Initial check

- The outdoor should be kept in well ventilated and dry place.
- Make sure that the noise and exhaust do not disturb your neighbours .
- Never install the outdoor unit at the place with high oil fog , salt mist or harmful gas such as sulfur steam.
- Far away from radiation source at least 3 meters.
- Install snow hood before the inlet and outlet of the outdoor unit , when the machine is installed at the ice area.
- Install the machine in shade place to avoid the sunshine directly and the high temperature heat radiation.
- Not install the machine at the place with dustiness or pollution avoid the heat exchanger blocked.
- Not install the machine at the place easy to touch.
- Not install the machine at the place where the monsoon or the wind between building can blow the fan directly.

NOTE: The fan COULD be destroyed by the strong wind when it blow the exchanger part of the outdoor unit directly .

Be careful of the Aluminum foil fin, it is sharp.

There is no one allowed to touch the outdoor unit except the service engineer.

#### 4.2 Installation

- (1) Use the washer provided in the accessory to fasten the machine at the foundation bolts.
- (2) When fasten the outdoor unit with the foundation bolts, the fasten holes position as the Fig4.1.
- (3) Fasten the outdoor unit as the Fig4.2.
- (4) Make sure fasten the outdoor unit tight and horizontal avoid to make noise when the machine oblique Or inclined by strong breeze or earthquake.
- (5) Not drain off water to the public places avoid to slip.

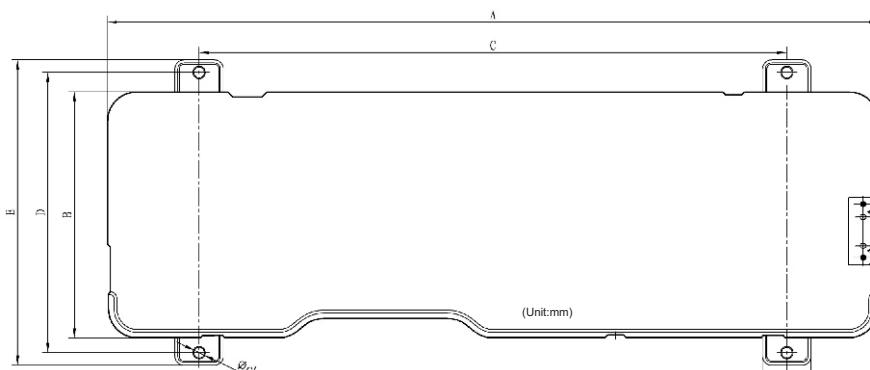


Fig.4.1 The position of anchor bolts

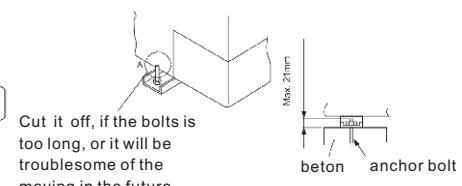


Fig. 4.2 The installation of anchor bolts

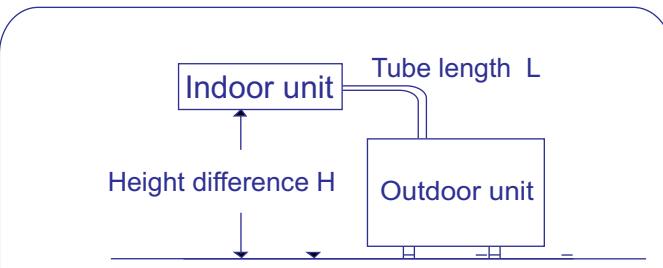
New DC-Inverter Unitary Air Conditioner  
(High-Efficiency type)

	A	B	C	D	E	F	d
18K	898	295	580	320	345	135	12
24K,36K	948	338	580	378	413	159	15

DC-Inverter Unitary Air Conditioner  
ON/OFF Unitary Air Conditioner  
Cooling Only Air Conditioner

	A	B	C	D	E	F	d
18K	798	255	608	290	316	71	12
24K	898	295	580	320	345	135	12
36K/42K/48K/60K	948	338	580	378	413	159	15

### 4.3 Tuber length between indoor and outdoor



Model	Max. Tube length(L)	Max. Height difference(H)	Add. Refrigerant (exceed 5m)
18k	15(m)	7.5(m)	15(g/m)
24k*	20(m)	10(m)	35(g/m)
36k	30(m)	15(m)	35(g/m)
42k/48k/60k	50(m)	15(m)	35(g/m)

\*For 24K High- Efficiency DC Inverter type:

Tuber length between indoor and outdoor is the same as 36k types.

Fig.4.3

If the total tube length is between 5m and 50m (Max. length), an additional refrigerant can be added. It's not necessary to add compressor oil. (Figure 4.3)

Additional charge:

For 18k:

$$Xg = 15g / m \times (\text{Total pipe length}(m) - 5)$$

For 24k/36K/42K/48K/60K:

$$Xg = 35g / m \times (\text{Total pipe length}(m) - 5)$$

## 5. Refrigerant Piping

### ! DANGER

Use refrigerant R22 or R410A in the refrigerant cycle(refer to outdoor nameplate). Do not charge oxygen, acetylene or other flammable and poisonous gases into the refrigerant cycle when performing a leakage test or an air-tight test. These types of gases are extremely dangerous and can cause an explosion. It is recommended that compressed air, nitrogen or refrigerant be used for these types of tests.

### 5. 1 The Piping Materials

- (1) Prepare locally-supplied copper pipes.
- (2) Set the piping size from the following table.

	Gas pipe	Liquid pipe
18K	φ12.7mm	φ6.35mm
24K/36K	φ15.88mm	φ9.52mm
42K/48K/60K	φ19.05mm	φ9.52mm

- (3) Select clean copper pipes. Make sure there is no dust and moisture inside. Blow the inside of the pipes with nitrogen or dry air, to remove any dust or foreign materials before connecting pipes.

### 5. 2 The Piping Connection

- (1) Position of piping connection is shown in Fig. 5. 1. (Indoor Unit)

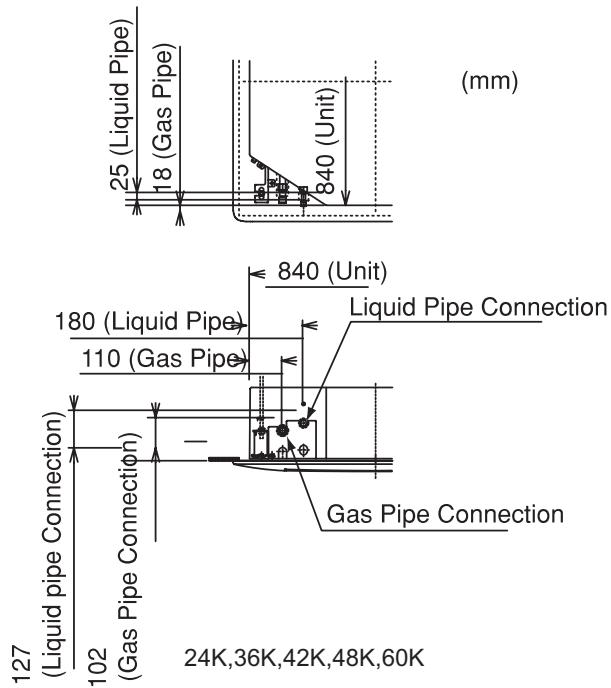
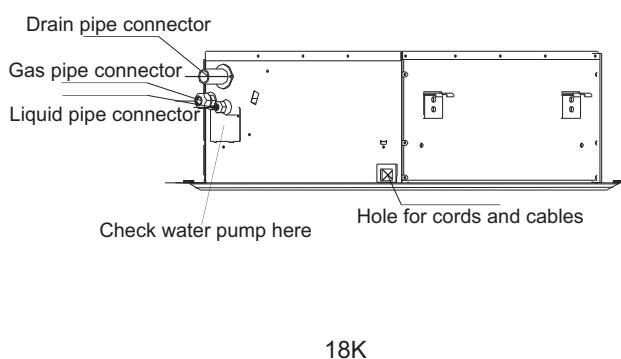
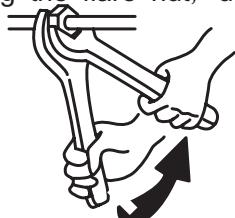


Fig. 5.1 Position of Piping Connection

- (2) When tightening the flare nut, use two spanners as shown in Fig. 5. 2.



Pipe Size	Tightening Torque (N.m)
φ6.35mm	20
φ9.52mm	40
φ12.7mm	60
φ15.88mm	80
φ19.05mm	100

Fig.5 .2 Tightening Work of Flare Nut

(3) After connecting the refrigerant piping, seal the refrigerant pipes by using the factory-supplied insulation material as shown in Fig5. 3.

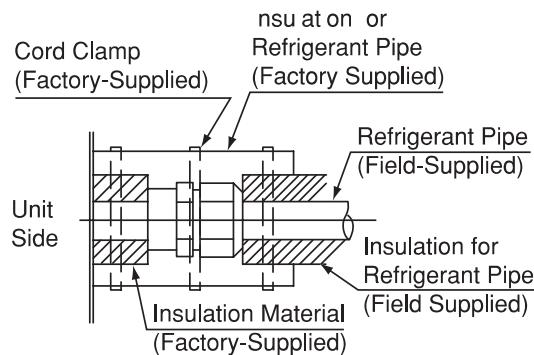


Fig. 5.3 Insulation on Pipes

### **CAUTION**

- Cap the end of the pipe when the pipe is to be inserted through a hole.
- Do not put pipes on the ground directly without a cap or vinyl tape at the end of the pipe.

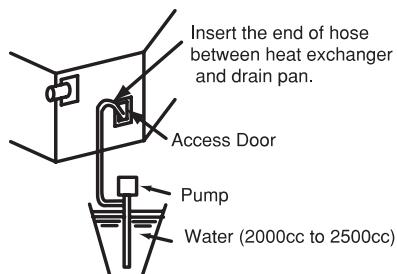
(4) Evacuation and refrigerant charging procedures should be performed according to “Installation & Maintenance Manual” of the outdoor unit.

## 6. Drain Piping

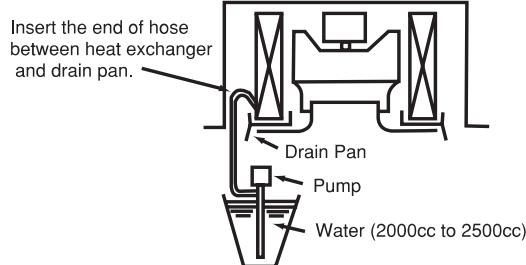
### CAUTION

- Do not create an upper-slope or rise for the drain piping, since drain water can flow back to the indoor unit and leakage into the room will occur when the system operation is stopped.
- Do not connect the drain pipe with sanitary or sewage piping or any other drainage piping.
- When the common drain piping is connected with other indoor units, the connected position of each indoor unit must be higher than the common drain pipe must be large enough according to the unit size and number of units.
- After performing drain piping work and electrical wiring, check to ensure that water flows smoothly as in the following procedure..
- Checking with the Float Switch:
  - (A) Switch ON the power supply.
  - (B) Pour 1.8 liters of water into the drain pan.
  - (C) Check to ensure that the water flows smoothly or whether no water leakage occurs. When water cannot be found at the end of the drain piping, pour another 1.8 liters of water into the drain.
  - (D) Switch ON the power supply and press the RUN/STOP button.

- In case of pouring water through the access door.



- In case of pouring water through the air outlet.



(1) The position of the drain pipe connection is shown in Fig. 6.1.

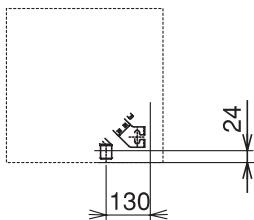
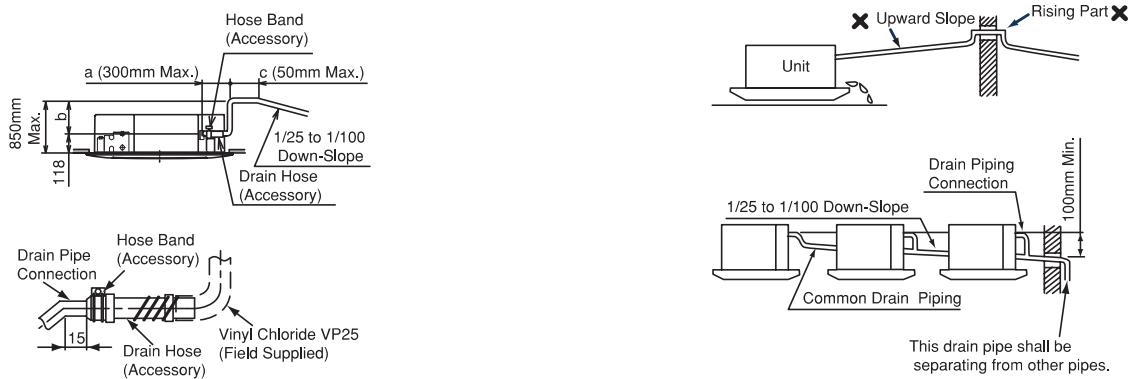


Fig. 6.1 Position of Drain Pipe Connection

(2) Prepare a polyvinyl chloride pipe with a 32mm outer diameter.  
 (3) Fasten the tubing to drain hose with the adhesive agent and factory-supplied clamp . The drain piping must be performed with a down-slope pitch of 1/25 to 1/100.



\*The total length of a+b+c shall be within 1,100mm.

\*In case of lifting the drain pipe at outlet part, perform the drain piping work as shown in the above figure.

(4) Insulate the drain pipe after connecting the drain hose.

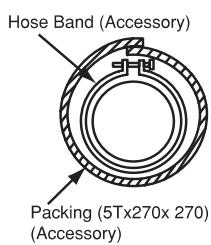


Fig. 6.2 Drain Piping

### 7. Electrical Wiring

#### **! WARNING**

- Turn OFF the main power switch to the indoor unit and the outdoor unit before electrical wiring work or a periodical check is performed.
- Check to ensure that the indoor fan and the outdoor fan have stopped before electrical wiring work or a periodical check is performed.
- Protect the wires, drain pipe, electrical parts, etc. from rats or other small animals. If not protected, rats may gnaw at unprotected parts and at the worst, a fire will occur.
- Check the item below before turning ON the main switch.
  - M3.5: 1.2N·m
  - M5: 2.0~2.4 N·m

#### **! CAUTION**

- Wrap the accessory packing around the wires, and plug the wiring connection hole with the seal Material to protect the product from any condensate water or insects.
- Tightly secure the wires with the cord clamp inside the indoor unit.
- Secure the cable of the remote control switch using the cord clamp inside the electrical box.

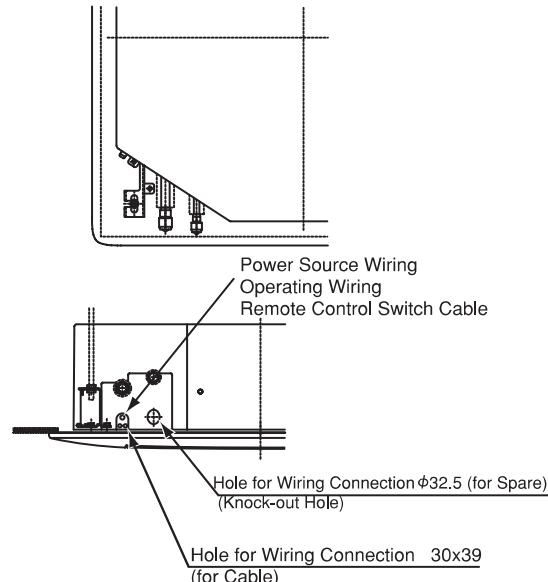
#### 7.1 General Check

- (1) Make sure that the field-selected electrical components (main power switches, circuit breakers, wires, conduit connectors and wire terminals) have been properly selected according to the electrical data given in "Technical Catalog I". Make sure that the components comply with National Electrical Code(NEC).
- (2) Check to ensure that the power supply voltage is within  $\pm 10\%$  of the rated voltage.
- (3) Check the capacity of the electrical wires. If the power source capacity is too low, the system cannot be started due to the voltage drop.
- (4) Check to ensure that the ground wire is connected.
- (5) Power Source Main Switch Install a multi-pole main switch with a space of 3.5mm or more between each phase.

### 7.2 Electrical Wiring Connection

The electrical wiring connection for the indoor unit is shown in Fig. 7.1. The intermediate connection between the indoor unit and the air panel should be referred to in the “Installation Manual for Air Panel”

- (1) Connect the cable of an optional remote control switch or an optional extension cable to the connectors on the printed circuit board inside the electrical box through the connecting hole in the cabinet.
- (2) Connect the power supply and earth wires to the terminals in the electrical box.
- (3) Connect the wires between the indoor unit and the outdoor unit to the terminals in the electrical box.



\*Field Minimum Wire Sizes for Power Source  
Refer to the item “9. Common”.

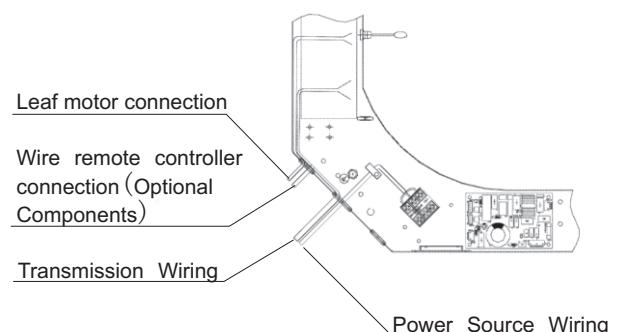
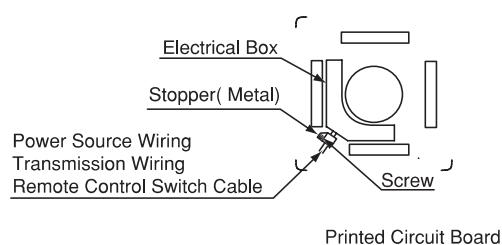


Fig. 7.1 Electrical Wiring Connection for Indoor Unit

### 8. Test Run

#### **WARNING**

- Only after all the checking points have been checked the unit can be operated.
  - (A) Check and make sure that the resistance of the terminal to ground is more than  $1M\Omega$ , otherwise, you cannot operate the unit before the electricity leakage point is found and repaired.
  - (B) Check and make sure that the stop valve has been opened before operating the unit.
  - (C) Make sure that turn on electric power 6 hours before operating the unit.
- Make sure the power and unit run well then plug in.
- Turn on the appliance and adjust it to Cooling or Heating mode according to the room temperature. Set tem. at  $18^{\circ}\text{C}$  when cooling mode and  $32^{\circ}\text{C}$  when heating mode. Check if the appliance can run well.
- Installation of the appliance is generally finished after the above operations are done. If you still have any trouble, please contact local technical service center of our company for further information.
- ***Pay attention to the following items while the system is running.***
  - (A) Do not touch any of the parts by hand at the discharge gas side, since the compressor chamber and the pipes at the discharge side are heated higher than  $90^{\circ}\text{C}$ .
  - (B) DO NOT PUSH THE BUTTON OF THE MAGNETIC SWITCH(ES). It will cause a serious accident.
  - (C) Use remote controller to operate, and check whether room temperature and function well.

After test, turn off the electric power.

## 9. Common

### ⚠ WARNING

- Use an ELB (Electric Leakage Breaker). If not used, it will cause an electric shock or a fire.
- Do not operate the system until all the check points have been cleared.
  - (A) Check to ensure that the insulation resistance is more than 1 megohm, by measuring the resistance between ground and the terminal of the electrical parts. If not, do not operate the system until the electrical leakage is found and repaired.
  - (B) Check to ensure that the stop valves of the outdoor unit are fully opened and then start the system.
- Pay attention to the following items while the system is running.
  - (A) Do not touch any of the parts by hand at the discharge gas side, since the compressor chamber and the pipes at the discharge side are heated higher than 90°C.
  - (B) DO NOT PUSH THE BUTTON OF THE MAGNETIC SWITCH(ES). It will cause a serious Accident.

Capacity (Btu/h)	Power Supply	Power Source Cable Size	Transmitting Cable Size
18K(Cooling Only Unitary Type)	220~240V,50Hz	3X1.5mm <sup>2</sup>	4X1.5mm <sup>2</sup>
18K(On/Off Unitary Type)	220~240V,50Hz	3X1.5mm <sup>2</sup>	5X1.5mm <sup>2</sup>
18K(DC Inverter Unitary Type)	220~240V,50Hz	3X1.5mm <sup>2</sup>	4x0.75mm <sup>2</sup>
18K(High-Efficiency DC Inverter Type)	220~240V,50Hz	3X1.5mm <sup>2</sup>	
24K 36K (DC Inverter Unitary Type)	220~240V,50Hz	3X2.5mm <sup>2</sup>	
36K(High-Efficiency DC Inverter Type)	380~418V,50Hz	5X1.5mm <sup>2</sup>	
36K(On/Off Unitary Type)	380~418V,50Hz	5X2.5mm <sup>2</sup>	
42K/48K/60K	380~418V,50Hz	5X2.5mm <sup>2</sup>	

#### NOTES:

- 1) Follow local codes and regulations when selecting field wires.
- 2) The wire sizes marked in the table are selected at the maximum current of the unit according to the European Standard ,En60 335-1. Use the wires which are not lighter than the ordinary tough rubber sheathed flexible cord (code designation H05RN-F) or ordinary polychloroprene sheathed flexible cord (code designation H05RN-F) .
- 3) Use a shielded cable for the transmitting circuit and connect it to ground .
- 4) In the case that power cables are connected in series, add each unit maximum current and select wires below.

#### Selection According to EN60 335-1

Current i (A)	Wire Size (mm <sup>2</sup> )
$i \leq 6$	0.75
$6 < i \leq 10$	1
$10 < i \leq 16$	1.5
$16 < i \leq 25$	2.5
$25 < i \leq 32$	4
$32 < i \leq 40$	6
$40 < i \leq 63$	10
$63 < i$	*3

\* in the case that current exceeds 63A, do not connect cables in series.

- 5) To be in compliance with EN 61000-3-11, the product shall be connected only to a supply of the system impedance:  $|Z_{sys}| \leq 0.247\Omega$ (for 18K On/Off Unitary type)  $|Z_{sys}| \leq 0.209\Omega$ (for 24K On/Off Unitary type).Before connecting the product to public power network, please consult your local power supply authority to ensure the power network meet above requirement.

MODEL: AUC-18UX4SGAA AUC-24UX4SZEA  
AUC-36UX4SAEA AUC-48UX6SPFA  
AUC-60UX6SPFA

## PACKING LIST

NO.	NAME	AMOUNT
1.	OUTDOOR UNIT	1
2.	INDOOR UNIT	1
3.	INDOOR ACCESSORIES	1
4.	MANUAL	1
5.	PANEL	1
6.	WIRE REMOTE CONTROLLER	1

MODEL: AUC-18HR4SUAA AUC-24HR4SZGA AUC-36HR6SAGA AUC-42CR6FEHA  
AUC-48HR6SPHA AUC-60HR6SPHA AUC-18UR4SZAA1  
AUC-24UR4SAEA1 AUC-36UR4SAEA1 AUC-18CR4FUAA

## PACKING LIST

NO.	NAME	AMOUNT
1.	OUTDOOR UNIT	1
2.	INDOOR UNIT	1
3.	INDOOR ACCESSORIES	1
4.	MANUAL	1
5.	PANEL	1
6.	WIRELESS REMOTE CONTROLLER	1



### Correct Disposal of this product

This marking indicates that this product should not be disposed with other household wastes throughout the EU. To prevent possible harm to the environment or human health from uncontrolled waste disposal, recycle it responsibly to promote the sustainable reuse of material resources. To return your used device, please use the return and collection systems or contact the retailer where the product was purchased. They can take this product for environmental safe recycling.